2066/407 BASKET STC UPDATE

5400-48 Issue 10



Department of Transport

Supplemental Type Certificate

This approval is issued to:

Aero Design Ltd.

2013 39th Avenue North East

Calgary, Alberta

Canada T2E 6R7

Number: SH00-48

Issue No.:

Sue No..

Approval Date:

December 08, 2000

Issue Date:

November 30, 2011

Responsible Office:

Prairie and Northern

Aircraft/Engine Type or Model:

BELL 206L, 206L-1, 206L-3, 206L-4, 407

Canadian Type Certificate or Equivalent:

BELL 206L, 206L-1, 206L-3, 206L-4, 407 H-92

Description of Type Design Change:

Installation of Cargo Basket / External Attachment

Provisions/Auxiliary step/Quick Release Step

Installation/Operating Data,
Required Equipment and Limitations:

Installation: See Continuation Sheets

Operation: See Continuation Sheets

Maintenance: See Continuation Sheets

Certification Basis: See Continuation Sheets

...See Contination Sheets Pages 2,3,4



Conditions: This approval is only applicable to the type/model of aeronautical product specified therein. Prior to incorporating this modification, the installer shall establish that the interrelationship between this change and any other modification(s) incorporated **will not** adversely affect the airworthiness of the modified product.

F.J.B. Wright For Minister of Transport



DESIGN APPROVAL DOCUMENT TRANSFER

Transfer of this design approval document requires the prior approval of the Minister and the reissue of this document in the name of the transferee.

The reissue of this design approval document in the name of the transferee will be contingent on the holder and the transferee fulfilling their responsibilities as described in section 521.357 of the Canadian Aviation Regulations.

TRANSFERT DU DOCUMENT D'APPROBATION DE LA CONCEPTION

L'approbation préalable du ministre est exigée en vue d'un transfert de ce document d'approbation de la conception et la réédition de ce document au nom du cessionnaire.

La réédition de ce document d'approbation de la conception au nom du cessionnaire est conditionnelle à la satisfaction des exigences et des responsabilités, du titulaire et du cessionnaire, décrites dans l'article 521.357 du Règlement de l'aviation canadien.

I have reviewed the above requirements and recognize that until the above requirements are met the certificate and all its privileges and obligations will not be transferred.

J'ai examiné les conditions susmentionnées et je comprends que le transfert du certificat et des privilèges et des obligations s'y rattachant ne sera pas effectué tant que ces conditions n'auront pas été respectées.

Signature of holder/signature du titulaire

date/date

Supersided
Sec Tasse 10

INSTRUCTIONS: The transfer endorsement below may be used to notify the appropriate FAA Regional Office of the transfer of the Supplemental Type Certificate.

The FAA will reissue the certificate in the name of the transferee and forward it to him.

TRANSFER ENDORSEMENT

Number: SH00-48 Issue 9

NOTE: THIS ADDENDUM SHALL REMAIN PART OF THE CERTIFICATE REFERRED TO THEREIN.

Bell 407 only:

Configuration	Installation	Operation	Maintenance
A-External	DCL700 Rev 1,	FMS700.91 Rev 0,	ICA700.90 Rev 0,
Attachment	22 September	4 May 2006*	20 April 2006 **
Provisions (may	2007*		
remain installed if			
basket removed)			
B- Low Mounted	DCL606 Rev 3,	FMS606.01 Rev 2,	ICA492.90 Rev 1,
Fixed (High Skid	28 September	28 September	28 September
Gear)	2007*	2007*	2007**
C-High Mounted	DCL606-1,	FMS606.01 Rev 1,	MI606.01 Rev 2,
Fixed***	Revision 1, 13	1 February 2005*	19 July 2004**
	December 2006		
D -Low Mounted	DCL701 Rev 4,	FMS701.90 Rev 3,	ICA698.90 Rev 2,
Quick Release (High	27 October 2011*	26 October 2007*	25 October 2011**
Skid Gear) Model 698			
E-High Mounted	DCL766-1 Rev 0,	FMS766.91 Rev 0,	ICA766.90 Rev 0,
Quick Release***	26 September	30 October 2007*	26 September
	2007*		2007**
F-Low Mounted Quick	DCL945-1 Rev 0,	FMS701.90 Rev 3,	ICA698.90 Rev 2,
Release (High Skid	27 October 2011*	26 October 2011*	25 October 2011**
Gear) Model 945			
G-Low Mounted	DCL946-1 Rev 0,	FMS701.90 Rev 3,	ICA698.90 Rev 2,
Quick Release (High	27 October 2011*	26 October 2011*	25 October 2011**
Skid Gear) Model 946			

^{*}or later approved revision

^{**} or later accepted revision

^{***} approved emergency push out windows or an approved sliding door are required on the side of the helicopter that a basket is installed on if passengers are to be carried.

Number: SH00-48 Issue 9

NOTE: THIS ADDENDUM SHALL REMAIN PART OF THE CERTIFICATE REFERRED TO THEREIN.

Bell 206L, L-1, L-3, L-4 only:

Configuration	Installation	Operation	Maintenance
A-Attachment	DCL493 Rev 6, 10	FMS493.01 Rev 0,	ICA493.90 Rev 0, 4
Provisions (may	May 2006*	19 May 2002*	May 2006**
remain installed if			
basket removed)			
B- Low Mounted	DCL492 Rev 6, 28	FMS492.01 Rev 2,	ICA492.90 Rev 1,
Fixed (High Skid	September 2007*	28 September 2007*	28 September
Gear)			2007**
C- Low Mounted	DCL702 Rev 3, 27	FMS702.90 Rev 3,	ICA698.90 Rev 2,
Quick Release	October 2011*	26 October 2011*	25 October 2011**
(High Skid Gear)	*		
Model 698			
D -High Mounted	DCL766-1 Rev 1,	FMS766.92 Rev 0,	ICA766.90 Rev 0,
Quick Release ***	23 September 2008*	30 October 2007*	26 September
			2007**
E-Low Mounted	DCL945-2 Rev 0,	FMS702.90 Rev 3,	ICA698.90 Rev 2,
Quick Release	27 October 2011*	26 October 2011*	25 October 2011**
(High Skid Gear)			
Model 945			
F-Low Mounted	DCL946-2 Rev 0,	FMS702.90 Rev 3,	ICA698.90 Rev 2,
Quick Release	27 October 2011*	26 October 2011*	25 October 2011**
(High Skid Gear)			
Model 946			

^{***} approved emergency push out windows or an approved sliding door are required on the side of the helicopter that a basket is installed on if passengers are to be carried.

Number: SH00-48 Issue 9

NOTE: THIS ADDENDUM SHALL REMAIN PART OF THE CERTIFICATE REFERRED TO THEREIN.

Bell 206 L series and Bell 407:

Configuration	Installation	Operation	Maintenance
Auxiliary Step	DCL623 Rev 4, 30	n/a	ICA623.91 Rev 1,
Installation	November 2010*		30 November
(optional)			2010**
Basket Modification	DCL704 Rev 7, 27	***	***
(options)	October 2011*		
Quick Release Step	DCL800-2 Rev 0, 2	Per applicable	ICA800.90 Rev 2, 2
(optional with:	December 2008*	installed basket	December 2008**
407 configs.D,F,G		configuration if	
206L configs.C,E,F)		installed.	

<u>Certification Basis:</u> The certifications basis for affected paragraphs is as follows:

Bell 407 Configurations.

All configurations	As per TCDS H-92 for the Bell 407, FAR
	27 amendment 27-30

Bell 206L Series Configurations

A - Attachment Provisions	FAR Part 27 amendment 27-24 (206-L4
B- Low mount Fixed	basis)
All other 206L series configurations	FAR Part 27 amendment 27-30 (407 basis)

^{***} FMS and ICA required by the basket configuration remain applicable.

Suite 820 800 Burrard Street Vancouver, BC V6Z 2J8

Your file Votre référence

Our file Notre référence 5010-SH00-48 RDIMS# 13374993

October 5, 2017

Mr. Jeff Clarke, Vice President Aero Design Ltd. 9888A Malaspina Road Powell River, BC V8A 0G3

Subject: Issuance of Supplemental Type Certificate (STC) SH00-48 Issue 10

Dear Mr. Clarke:

This STC is issued in response to your application. Included with the STC are the documents bearing original Transport Canada signatures.

The transfer of this STC in the name of another person requires the prior approval from the Minister in accordance with section 521.357 of the Canadian Aviation Regulations (CAR).

Embodiment of modifications requiring certification of detail part fabrication and installation, in accordance with approved data identified on the certificate, is considered to be a maintenance activity and the requirements of subsection 571.06(4) of the CARs will apply.

A Canadian Holder is required to fulfill the responsibilities of a Design Approval Document Holder in accordance with Division VIII of subpart 521 of the CAR, including the reporting of any service difficulties experienced with their product. Therefore, should you become aware of any defect, malfunction or failure resulting from the design change, it is your responsibility to submit a Service Difficulty Report to Transport Canada.

For any additional information, please do not hesitate to contact the undersigned at (604) 666-8458 or by e-mail to michael.chan@tc.gc.ca.

Yours truly,

Michael Chan Regional Engineer Aircraft Certification Pacific Region

Encl.

DOCUMENT NUMBER: 13374993

VERSION: 1

Department of Transport

Supplemental Type Certificate

This approval is issued to:

Aero Design Ltd.

9888A Malaspina Road

Powell River, British Columbia

Canada V8A 0G3

Responsible Office:

Aircraft/Engine Type or Model:

Canadian Type Certificate or Equivalent:

Description of Type Design Change:

Installation/Operating Data,

Required Equipment and Limitations:

Operation: See Continuation Sheets

Installation: See Continuation Sheets

Maintenance: See Continuation Sheets

Certification Basis: See Continuation Sheets

Number: SH00-48

Issue No.: 10

Approval Date:

December 08, 2000

Issue Date:

October 05, 2017

Pacific

Bell 206L, 206L-1, 206L-3, 206L-4, 407

H-92

Installation of Cargo Basket / External Attachment Provisions/Auxiliary Step/Quick Release Step

...See Contination Sheets Pages 2,3,4

Conditions: This approval is only applicable to the type/model of aeronautical product specified therein. Prior to incorporating this modification, the installer shall establish that the interrelationship between this change and any other modification(s) incorporated will not adversely affect the airworthiness of the modified product.

> Michael Chan For Minister of Transport





Number: SH00-48 Issue 10

NOTE: THIS ADDENDUM SHALL REMAIN PART OF THE CERTIFICATE REFERRED TO THEREIN.

Bell 407 Only:

Configuration	Installation	Operation	Maintenance
A - External Attachment	DCL700-1 Rev. 2	FMS700.91 Rev. 1	ICA700.90 Rev. 1
Provisions (may remain installed if basket removed)	10 April 2017*	22 January 2017*	09 February 2017**
B - Low Mounted Fixed	DCL606 Rev. 4	FMS606.01 Rev. 3	ICA492.90 Rev. 2
(High Skid Gear)	11 April 2017*	22 January 2017*	04 February 2017**
C - High Mounted	DCL606-1, Rev. 2	FMS606.01 Rev. 3	ICA606.90 Rev. 3
Fixed***	11 April 2017*	22 January 2017*	05 February 2017**
D - Low Mounted Quick	DCL701 Rev. 5	FMS701.90 Rev. 4	ICA698.90 Rev. 4
Release (High Skid Gear) Model 698	25 June 2017*	22 January 2017*	10 February 2017**
E - High Mounted Quick	DCL766-1 Rev. 2	FMS766.91 Rev. 1	ICA766.90 Rev. 1
Release***	25 June 2017*	25 June 2017*	25 June 2017**
F - Low Mounted Quick	DCL945-1 Rev. 1	FMS701.90 Rev. 4	ICA698.90 Rev. 4
Release (High Skid Gear) Model 945	25 June 2017*	22 January 2017*	10 February 2017**
G - Low Mounted Quick	DCL946-1 Rev. 1	FMS701.90 Rev. 4	ICA698.90 Rev. 4
Release (High Skid Gear) Model 946	25 June 2017*	22 January 2017*	10 February 2017**

^{*} or later approved revision

^{**} or later accepted revision

^{***} approved emergency push out windows or an approved sliding door are required on the side of the helicopter that a basket is installed on if passengers are to be carried.



Number: SH00-48 Issue 10

NOTE: THIS ADDENDUM SHALL REMAIN PART OF THE CERTIFICATE REFERRED TO THEREIN.

Bell 206L, L-1, L-3, L-4 only:

Configuration	Installation	Operation	Maintenance
A – External Attachment	DCL493-1 Rev. 7	FMS493.01 Rev. 1	ICA493.90 Rev. 1
Provisions (may remain	10 April 2017*	22 January 2017*	09 February 2017**
installed if basket			55 . Coldary 2017
removed)			
B - Low Mounted Fixed	DCL492 Rev. 7	FMS492.01 Rev. 3	ICA492.90 Rev. 2
(High Skid Gear)	10 April 2017*	22 January 2017*	04 February 2017**
C - Low Mounted Quick	DCL702 Rev. 4	FMS702.90 Rev. 4	ICA698.90 Rev. 4
Release (High Skid Gear)	25 June 2017*	22 January 2017*	10 February 2017**
Model 698		, 2027	10 rebruary 2017
D - High Mounted Quick	DCL766-1 Rev. 2	FMS766.92 Rev. 1	ICA766.90 Rev. 1
Release ***	25 June 2017*	25 June 2017*	25 June 2017**
E - Low Mounted Quick	DCL945-2 Rev. 1	FMS702.90 Rev. 4	ICA698.90 Rev. 4
Release (High Skid Gear)	25 June 2017*	22 January 2017*	
Model 945			10 February 2017**
F - Low Mounted Quick	DCL946-2 Rev. 1	FMS702.90 Rev. 4	ICA698.90 Rev. 4
Release (High Skid Gear)	25 June 2017*	22 January 2017*	
Model 946		January 2017	10 February 2017**
or later approved revision	** or later	accepted revision	

^{**} or later accepted revision

^{***} approved emergency push out windows or an approved sliding door are required on the side of the helicopter that a basket is installed on if passengers are to be carried.



Number: SH00-48 Issue 10

NOTE: THIS ADDENDUM SHALL REMAIN PART OF THE CERTIFICATE REFERRED TO THEREIN.

Bell 206 L series and Bell 407:

Operation n/a	Maintenance ICA623.91 Rev. 2
1.74	I I AD/3 91 RAV
1	
***	11 February 2017**
Per applicable	ICA 900 00 Day 2
	ICA800.90 Rev. 3
	13 January 2015**
	Per applicable installed basket configuration if installed.

<u>Certification Basis:</u> The certification basis for the affected paragraphs is as follows:

Bell 407 Configurations

All configurations	As per TCDS H-92 for the Bell 407, FAR 27
	amendment 27-30

Bell 206L Series Configurations

A - Attachment Provisions B - Low Mounted Fixed	FAR Part 27 amendment 27-24 (206-L4 basis)
All other 206L configurations	FAR Part 27 amendment 27-30 (407 basis)

^{**} or later accepted revision

^{***} FMS and ICA required by the basket configuration remain applicable



Supplemental Type Certificate

Number: SR02253NY

This certificate issued to: Aero Design Ltd. 9888A Malaspina Road Powell River, BC, V8A 0G3

certifies that the change in the type design for the following product with the limitations and conditions therefore as specified hereon meets the airworthiness requirements of Part 27 of the Federal Aviation Regulations.

Original Product - Type Certificate Number:

H2SW

Make: Bell Helicopter Textron Canada Limited

Model: 206L, 206L-1, 206L-3, 206L-4, 407

Description of Type Design Change:

The installation of Cargo Basket, External Attachment Provisions, Auxiliary Step and Quick Release Step for:

1. 407 Configuration A-External Attachment Provisions Only: Installation of External Attachment Provisions to be done in accordance with Aero Design Ltd. Document Control List, DCL700-1, Revision 2 dated April 10, 2017, or later Transport Canada approved revision.

(Description of Type Design Change Continued on Page 3 of 7)

Limitations and Conditions:

- I. Bell 407 Only
 - 1. 407 Configuration A-External Attachment Provisions Only:
 - a. Operation must be in accordance with Aero Design Ltd. Flight Manual Supplement, FMS700.91, Revision 1 dated January 22, 2017, or later Transport Canada approved revision.

(Limitations and Conditions Continued on Page 5 of 7)

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, and revoked or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of Application: August 9, 2004

Date Reissued: April 26, 2018

Date of Issuance:

April 19, 2006

Date Amended: April 1, 2011, August 6, 2012, February 4, 2019

By Direction of the Administrator

Anthony E. Gallo

Manager

New York ACO Branch

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both. This certificate may be transferred or made available to third persons by licensing agreements in accordance with 14 CFR 21.47. Possession of this Supplemental Type Certificate (STC) document by persons other than the STC holder does not constitute rights to the design data nor to alter an aircraft, aircraft engine, or propeller. The STC's supporting documentation (drawings, instructions, specifications, flight manual supplements, etc.) is the property of the STC holder. An STC holder who allows a person to use the STC to alter an aircraft, aircraft engine, or propeller must provide that person with written permission acceptable to the FAA. (Ref. 14 CFR 21.120).

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${ m To}$ (Name and address of transferee)
Transfer the ownership of Supplemental Type Certificate Number: SR02253NY
INSTRUCTIONS: The transfer endorsement below may be used to notify the appropriate FAA Aircraft Certification Office of the transfer of this Supplemental Type Certificate. The FAA will reissue the certificate in the name of the transferce and forward it to him.

Extent of Authority (if licensing agreement):

 \mathbf{From} (Name and address of grantor)

FAA Form 8110-2 (5/14)

notenost to ostale

Signature of granton

propeller. The STC's supporting documentation (drawings, instructions, specifications, flight manual supplements, etc.) is the property of the STC holder who sllows a person to use the STC to after an aircraft, aircraft engine, or propeller must provide that person with written permission acceptable to the FAA. (Ref. 14 CFR 21.120). Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both. This certificate may be transferred or made available to third persons by licensing agreements in accordance with 14 CFR 21.47. Possession of this Supplemental Type Certificate (STC) document by persons other than the STC holder does not constitute rights to the design data nor to alter an aircraft, aircraft engine, or propeller. The STC's autoporting documentation (drawings instructions specifications flight manual supplements etc.) is the property of the STC.



Supplemental Type Certificate

(Continuation Sheet)
Number: SR02253NY

Date Amended: February 4, 2019

Description of Type Design Change (continued):

I. Bell 407 Only (continued)

- 2. 407 Configuration B-External Cargo Basket Installation (Low Mounted Fixed): Installation of Configuration A, External Attachment Provisions is a prerequisite for Configuration B, External Cargo Basket Installation. Installation of External Cargo Basket is to be completed in accordance with Transport Canada approved, Aero Design Ltd. Document Control List DCL606, Revision 4, dated April 11, 2017, or later Transport Canada approved revision. High skid gear is required for the basket installation. Placard is required on the basket lid.
- 3. 407 Configuration C-External Cargo Basket Installation (High Mounted Fixed): Installation of Configuration A, External Attachment Provisions is a prerequisite for installation of Configuration C, External Cargo Basket Installation. Installation of the External Cargo Basket is to be completed in accordance with Transport Canada approved, AERO Design Ltd., Document Control List DCL606-1, Revision 2, dated April 11, 2017, or later Transport Canada approved revision. Approved emergency exit "push out" windows or an approved sliding door are required on the side of the helicopter that the basket is installed on if passengers are to be carried. Placard required on the basket lid.
- 4. 407 Configuration D-External Cargo Basket Installation (Low Mounted Quick Release, Model 698): Installation of Configuration A, External Attachment Provisions is a prerequisite for Configuration D, External Cargo Basket Installation. Installation of External Cargo Basket is to be completed in accordance with Transport Canada Aero approved, Design Ltd. Document Control List DCL701, Revision 5, dated June 25, 2017, or later Transport Canada approved revision. High skid gear is required for the basket installation. Placard is required on the basket lid.
- 5. 407 Configuration E-External Cargo Basket Installation (High Mounted Quick Release): Installation of Configuration A, External Attachment Provisions is a prerequisite for installation of Configuration E, External Cargo Basket Installation. Installation of the External Cargo Basket is to be completed in accordance with Transport Canada approved, AERO Design Ltd., Document Control List DCL766-1, Revision 2, dated June 25, 2017, or later Transport Canada approved revision. Approved emergency exit "push out" windows or an approved sliding door are required on the side of the helicopter that the basket is installed on if passengers are to be carried. Placard required on the basket lid.
- 6. 407 Configuration F-External Cargo Basket Installation (Low Mounted Quick Release, Model 945): Installation of Configuration A, External Attachment Provisions is a prerequisite for installation of Configuration F, External Cargo Basket Installation. Installation of the External Cargo Basket is to be completed in accordance with Transport Canada approved, AERO Design Ltd., Document Control List DCL945-1, Revision 1, dated June 25, 2017, or later Transport Canada approved revision. High skid gear is required for the basket installation. Placard is required on the basket lid.
- 7. 407 Configuration G-External Cargo Basket Installation (Low Mounted Quick Release, Model 946): Installation of Configuration A, External Attachment Provisions is a prerequisite for installation of Configuration G, External Cargo Basket Installation. Installation of the External Cargo Basket is to be completed in accordance with Canada Transport approved, AERO Design Ltd., Document Control List DCL946-1, Revision 1, dated June 25, 2017 or later Transport Canada approved revision. High skid gear is required for the basket installation. Placard is required on the basket lid.

(Description of Type Design Change Continued on Page 4 of 7)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both. This certificate may be transferred or made available to third persons by licensing agreements in accordance with 14 CFR 21.47. Possession of this Supplemental Type Certificate (STC) document by persons other than the STC holder does not constitute rights to the design data nor to alter an aircraft, aircraft engine, or propeller. The STC's supporting documentation (drawings, instructions, specifications, flight manual supplements, etc.) is the property of the STC holder. An STC holder who allows a person to use the STC to alter an aircraft, aircraft engine, or propeller must provide that person with written



Supplemental Type Certificate

(Continuation Sheet) Number: SR02253NY

Date Amended: February 4, 2019

Description of Type Design Change (continued):

II. Bell 206L, L-1, L-3, L-4 Only

- 206L Series Configuration A-External Attachment Provisions Only: Installation of External Attachment Provisions to be done in accordance with Transport Canada approved, Aero Design Ltd. Document Control List, DCL493-1, Revision 7 dated April 10, 2017, or later Transport Canada approved revision.
- 2. 206L Series Configuration B-External Cargo Basket Installation (Low Mounted Fixed): Installation of Configuration A, External Attachment Provisions is a prerequisite for installation of Configuration B, External Cargo Basket installation. Installation of the cargo basket is to be completed in accordance with Transport Canada approved, AERO Design Ltd., Document Control List DCL492, Revision 7, dated April 10, 2017, or later Transport Canada approved revision. High skid gear is required for the basket installation. Placard is required on the basket lid.
- 3. 206L Series Configuration C-External Cargo Basket Installation (Low Mounted Quick Release, Model 698): Installation of Configuration A, External Attachment Provisions is a prerequisite for installation of Configuration C, External Cargo Basket installation. Installation of the cargo basket is to be completed in accordance with Transport Canada approved, AERO Design Ltd., Document Control List DCL702, Revision 4, dated June 25, 2017, or later Transport Canada approved revision. High skid gear is required for the basket installation. Placard is required on the basket lid.
- 4. 206L Series Configuration D-External Cargo Basket Installation (High Mounted Quick Release): Installation of Configuration A, External Attachment Provisions is a prerequisite for installation of Configuration D, External Cargo Basket Installation. Installation of the External Cargo Basket is to be completed in accordance with Transport Canada approved, AERO Design Ltd., Document Control List DCL766-1, Revision 2, dated June 25, 2017, or later Transport Canada approved revision. Approved emergency exit "push out" windows or an approved sliding door are required on the side of the helicopter that the basket is installed on if passengers are to be carried. Placard required on the basket lid.
- 5. 206L Series Configuration E-External Cargo Basket Installation (Low Mounted Quick Release, Model 945): Installation of Configuration A, External Attachment Provisions is a prerequisite for installation of Configuration E, External Cargo Basket installation. Installation of the cargo basket is to be completed in accordance with Transport Canada approved, AERO Design Ltd., Document Control List DCL945-2, Revision 1, dated June 25, 2017, or later Transport Canada approved revision. High skid gear is required for the basket installation. Placard is required on the basket lid.
- 6. 206L Series Configuration F-External Cargo Basket Installation (Low Mounted Quick Release, Model 946): Installation of Configuration A, External Attachment Provisions is a prerequisite for installation of Configuration F, External Cargo Basket installation. Installation of the cargo basket is to be completed in accordance with Transport Canada approved, AERO Design Ltd., Document Control List DCL946-2, Revision 1, dated June 25, 2017, or later Transport Canada approved revision. High skid gear is required for the basket installation. Placard is required on the basket lid.
- III. All Models (Bell 206L series and 407)
 - 1. Auxiliary Step Installation: Installation of the Auxiliary Step is to be completed in accordance with Transport (Description of Type Design Change Continued on Page 5 of 7)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both. This certificate may be transferred or made available to third persons by licensing agreements in accordance with 14 CFR 21.47. Possession of this Supplemental Type Certificate (STC) document by persons other than the STC holder does not constitute rights to the design data nor to alter an aircraft, aircraft engine, or propeller. The STC's supporting documentation (drawings, instructions, specifications, flight manual supplements, etc.) is the property of the STC holder who allows a person to use the STC to alter an aircraft, aircraft engine, or propeller must provide that person with written permission acceptable to the FAA. (Ref. 14 CFR 21.120).



Supplemental Type Certificate

(Continuation Sheet) Number: SR02253NY

Date Amended: February 4, 2019

Description of Type Design Change (continued):

- III. All Models (Bell 206L series and 407) (continued)
 - Canada approved, AERO Design Ltd., Document Control List DCL623, Revision 5, dated May 31, 2017, or later Transport Canada approved revision.
- Cargo Basket Modifications: Modifications to the cargo basket configurations are eligible in accordance with Transport Canada approved, AERO Design Ltd., Document Control List DCL704, Revision 11, dated June 25, 2017, or later Transport Canada approved revision. Eligibility limitations are noted on the drawings.
- 3. Quick Release Step Installation: Installation of the Low Mounted Quick Release Basket (407-Configuration D, F, G; 206L-Configuration C, E, F) is required prior to the installation of the Quick Release Step. Installation of the Quick Release Step is to be completed in accordance with Transport Canada approved, AERO Design Ltd., Document Control List DCL800-2, Revision 1, dated May 31, 2017, or later Transport Canada approved revision.

Limitations and Conditions (continued):

- I. Bell 407 Only (continued)
 - b. Instructions for Continued Airworthiness described in Aero Design Ltd. Instructions for Continued Airworthiness ICA700.90, Revision 1 dated February 09, 2017, or later Transport Canada accepted revisions are required for this installation.
 - c. External Attachment Provisions installed in accordance with DCL700-1 may remain installed if the basket installation is removed.
- 2. 407 Configuration B-External Cargo Basket Installation (Low Mounted Fixed):
 - a. Operation must be in accordance with Transport Canada approved, Aero Design Ltd. Flight Manual Supplement, FMS 606.01, Revision 3 dated January 22, 2017, or later Transport Canada approved revision.
 - b. Instructions for Continued Airworthiness described in Aero Design Ltd. Instructions for Continued Airworthiness ICA492.90, Revision 2 dated February 04, 2017, or later Transport Canada accepted revisions are required for this installation.
- 3. 407 Configuration C-External Cargo Basket Installation (High Mounted Fixed):
 - a. Operation must be in accordance with Transport Canada approved, Aero Design Ltd. Flight Manual Supplement, FMS606.01, Revision 3 dated January 22, 2017, or later Transport Canada approved revision.
 - b. Aero Design Ltd. Maintenance Instructions ICA606.90, Revision 3 dated February 05, 2017, or later Transport Canada accepted revisions are required for this installation.
- 4. 407 Configuration D-External Cargo Basket Installation (Low Mounted Quick Release, Model 698):
 - a. Operation must be in accordance with Aero Design Ltd. Flight Manual Supplement, FMS701.90, Revision 4 dated January 22, 2017, or later Transport Canada approved revision.
 - b. Instructions for Continued Airworthiness described in Aero Design Ltd. Instructions for Continued Airworthiness ICA698.90, Revision 4 dated February 10, 2017, or later Transport Canada accepted revisions are required for this installation.
- 5. 407 Configuration E-External Cargo Basket Installation (High Mounted Quick Release):
 - a. Operation must be in accordance with Aero Design Ltd. Flight Manual Supplement, FMS766.91, Revision 1 dated June 25, 2017, or later Transport Canada approved revision.
 - Instructions for Continued Airworthiness described in Aero Design Ltd. Instructions for Continued (Limitations and Conditions Continued on Page 6 of 7)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both. This certificate may be transferred or made available to third persons by licensing agreements in accordance with 14 CFR 21.47. Possession of this Supplemental Type Certificate (STC) document by persons other than the STC holder does not constitute rights to the design data nor to alter an aircraft, aircraft engine, or propeller. The STC's supporting documentation (drawings, instructions, specifications, flight manual supplements, etc.) is the property of the STC holder who allows a person to use the STC to alter an aircraft, aircraft engine, or propeller must provide that person with written



Supplemental Type Certificate

(Continuation Sheet) Number: SR02253NY

Date Amended: February 4, 2019

Limitations and Conditions (continued):

I. Bell 407 Only (continued)

Airworthiness ICA766.90, Revision 1 dated June 25, 2017, or later Transport Canada accepted revisions are required for this installation.

- 6. 407 Configuration F-External Cargo Basket Installation (Low Mounted Quick Release, Model 945):
 - a. Operation must be in accordance with Aero Design Ltd. Flight Manual Supplement, FMS701.90, Revision 4 dated January 22, 2017, or later Transport Canada approved revision.
 - b. Instructions for Continued Airworthiness described in Aero Design Ltd. Instructions for Continued Airworthiness ICA698.90, Revision 4 dated February 10, 2017, or later Transport Canada accepted revisions are required for this installation.
- 7. 407 Configuration G-External Cargo Basket Installation (Low Mounted Quick Release, Model 946):
 - a. Operation must be in accordance with Aero Design Ltd. Flight Manual Supplement, FMS701.90, Revision 4 dated January 22, 2017, or later Transport Canada approved revision.
 - b. Instructions for Continued Airworthiness described in Aero Design Ltd. Instructions for Continued Airworthiness ICA698.90, Revision 4 dated February 10, 2017, or later Transport Canada accepted revisions are required for this installation.

II. Bell 206L, L-1, L-3, L-4 Only

- 1. 206L Series Configuration A-External Attachment Provisions Only:
 - a. Operation must be in accordance with Aero Design Ltd. Flight Manual Supplement, FMS493.01 Revision 1 dated January 22, 2017, or later Transport Canada approved revision.
 - b. Instructions for Continued Airworthiness described in AERO Design Ltd. Instructions for Continued Airworthiness ICA493.90, Revision 1 dated February 09, 2017, or later Transport Canada accepted revisions are required for this installation.
 - c. External Attachment Provisions installed in accordance with DCL493-1 may remain installed if the basket installation is removed.
- 2. 206L Series Configuration B-External Cargo Basket Installation (Low Mounted Fixed):
 - a. Operation must be in accordance with Transport Canada approved, Aero Design Ltd. Flight Manual Supplement, FMS492.01 Revision 3 dated January 22, 2017, or later Transport Canada approved revision.
 - b. Instructions for Continued Airworthiness described in AERO Design Ltd. Instructions for Continued Airworthiness ICA492.90, Revision 2 dated February 04, 2017, or later Transport Canada accepted revisions are required for this installation.
- 3. 206L Series Configuration C-External Cargo Basket Installation (Low Mounted Quick Release, Model 698):
 - a. Operation must be in accordance with Aero Design Ltd. Flight Manual Supplement, FMS702.90 Revision 4 dated January 22, 2017, or later Transport Canada approved revision.
 - b. Instructions for Continued Airworthiness described in AERO Design Ltd. Instructions for Continued Airworthiness ICA698.90, Revision 4 dated February 10, 2017, or later Transport Canada accepted revisions are required for this installation.
- 4. 206L Series Configuration D-External Cargo Basket Installation (High Mounted Quick Release):
 - a. Operation must be in accordance with Aero Design Ltd. Flight Manual Supplement, FMS766.92 Revision 1 (Limitations and Conditions Continued on Page 7 of 7)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both. This certificate may be transferred or made available to third persons by licensing agreements in accordance with 14 CFR 21.47. Possession of this Supplemental Type Certificate (STC) document by persons other than the STC holder does not constitute rights to the design data nor to alter an aircraft, aircraft engine, or propeller. The STC's supporting documentation (drawings, instructions, specifications, flight manual supplements, etc.) is the property of the STC holder. An STC holder who allows a person to use the STC to alter an aircraft, aircraft engine, or propeller must provide that person with written



Supplemental Type Certificate

(Continuation Sheet) Number: SR02253NY

Date Amended: February 4, 2019

Limitations and Conditions (continued):

II. Bell 206L, L-1, L-3, L-4 Only (continued)

dated June 25, 2017, or later Transport Canada approved revision.

- b. Instructions for Continued Airworthiness described in AERO Design Ltd. Instructions for Continued Airworthiness ICA766.90, Revision 1 dated June 25, 2017, or later Transport Canada accepted revisions are required for this installation.
- 5. 206L Series Configuration E-External Cargo Basket Installation (Low Mounted Quick Release, Model 945):
 - a. Operation must be in accordance with Aero Design Ltd. Flight Manual Supplement, FMS702.90 Revision 4 dated January 22, 2017, or later Transport Canada approved revision.
 - b. Instructions for Continued Airworthiness described in AERO Design Ltd. Instructions for Continued Airworthiness ICA698.90, Revision 4 dated February 10, 2017, or later Transport Canada accepted revisions are required for this installation.
- 6. 206L Series Configuration F-External Cargo Basket Installation (Low Mounted Quick Release, Model 946):
 - a. Operation must be in accordance with Aero Design Ltd. Flight Manual Supplement, FMS702.90 Revision 4 dated January 22, 2017, or later Transport Canada approved revision.
 - b. Instructions for Continued Airworthiness described in AERO Design Ltd. Instructions for Continued Airworthiness ICA698.90, Revision 4 dated February 10, 2017, or later Transport Canada accepted revisions are required for this installation.

III. All Models (Bell 206L series and 407)

- 1. Auxiliary Step Installation:
 - a. The auxiliary step is optional and is not required with installations listed above.
 - Auxiliary Step installed in accordance with DCL623 may remain installed if the basket installation is removed.
 - c. Instructions for Continued Airworthiness described in AERO Design Ltd. Instructions for Continued Airworthiness ICA623.91, Revision 2 dated February 11, 2017, or later Transport Canada accepted revisions are required for this installation.
- Cargo Basket Modifications: Eligibility limitations are noted on the drawings contained in AERO Design Ltd., Document Control List DCL704, Revision 11, dated June 25, 2017, or later Transport Canada approved revision.
- 3. Quick Release Step Installation:
 - a. The Quick Release Step is optional and is not required with the Quick Release Cargo Basket Installation.
 - b. The Quick Release Step may be stowed in the inboard position on the mounting provisions when the Quick Release Cargo Basket is installed.
 - c. Instructions for Continued Airworthiness described in AERO Design Ltd. Instructions for Continued Airworthiness ICA800.90, Revision 3 dated January 13, 2015, or later Transport Canada accepted revisions are required for this installation.
- IV. The installer must determine whether this design change is compatible with previously approved modifications.
- V. If the holder agrees to permit another person to use the certificate to alter a product, the holder must give the other person written evidence of that permission.

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Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both. This certificate may be transferred or made available to third persons by licensing agreements in accordance with 14 CFR 21.47. Possession of this Supplemental Type Certificate (STC) document by persons other than the STC holder does not constitute rights to the design data nor to alter an aircraft, aircraft engine, or propeller. The STC's supporting documentation (drawings, instructions, specifications, flight manual supplements, etc.) is the property of the STC holder. An STC holder who allows a person to use the STC to alter an aircraft, aircraft engine, or propeller must provide that person with written permission acceptable to the FAA. (Ref. 14 CFR 21.120).

(Listing of Current Approved and Accepted Documents)

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT			
REV.	NO.	REV.	DATE	DOCOMENT CONTENT			
	DOCUMENTS SITED ON THE APPROVAL DOCUMENT						
7	FMS492.01	3	22/01/2017	Flight Manual Supplement			
7	ICA492.90	2	04/02/2017	Instructions for Continued Airworthiness			
		ll.	VISTALLATION	DOCUMENTS			
6	49201	3	04/06/2007	Side Mounted Cargo Basket Installation			
		FABRIC	ATION AND O	THER DOCUMENTS			
6	DCL492-1	1	28/09/2007	Document Control List for Side Mounted Cargo Basket Assembly			
		14					

	DCL REVISION CONTROL						
DCL	DCL REV.	REVISION	APPROVED	DESCRIPTION			
REV.	DATE	BY	BY	DESCRIPTION			
0	17/05/2002	Steven Fahey	TCCA - PNR	Original			
1	25/06/2002	Steven Fahey	TCCA - PNR	Flight Manual Supplement updated.			
2	12/07/2002	Steven Fahey	TCCA - PNR	Maintenance Instructions added.			
3				Not issued.			
4	20/07/2004	Steven Fahey	TCCA - PNR	New address. Basket assembly updated for interchangeability with Bell 407. Maintenance instructions updated.			
5	10/05/2006	Jeff Clarke	TCCA - PNR	Assembly documents moved to DCL492-1. Maintenance instructions changed to ICA.			
6	28/09/2007	Jeff Clarke	TCCA - PNR	Changes for pocked mounting beams.			
7	10/04/2017	Jeff Clarke	TCCA - Pacific	Format changed. New address.			
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VAL:	A			
CANADA		Aero De	sign Ltd.	α
DEPARTMENT OF TRANSPORT		9888A Mala	aspina Road	
AIRCRAFT CERTIFICATION	/_			
PACIFIC REGION		161: 604.483.2376	www.aerodesign.ca	
		Bell 206L Ser	ies	
OCT 0 5 2017	Side-M	ounted Cargo Bas	ket Installa	tion
		(Configuration	n B)	s i se č ni mondenné
APPROVED	Document C	ontrol List Number	Revision	Sheet
CERTIFICATE NO.	DC	1/02	7	1 of 1
SHOW ISSUE/D		L47Z		1011
	CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION PACIFIC REGION OCT 0 5 2017 APPROVED CERTIFICATE NO. SHAPE OF ISSUE/O.	CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION PACIFIC REGION OCT 0 5 2017 Side-M Document C	CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION PACIFIC REGION Bell 206L Ser Side-Mounted Cargo Bas (Configuration Document Control List Number	CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION PACIFIC REGION Bell 206L Series Side-Mounted Cargo Basket Installa (Configuration B) Document Control List Number Revision

(Listing of Current Approved and Accepted Documents)

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT			
REV.	NO.	REV.	DATE	DOCUMENT CONTENT			
	DOCUMENTS SITED ON THE APPROVAL DOCUMENT						
7	FMS493.01	1	22/01/2017	Flight Manual Supplement			
7	ICA493.90	1	09/02/2017	Instructions for Continued Airworthiness			
		11	ISTALLATION	DOCUMENTS			
. 7	49301	3	23/10/2016	External Attachment Provisions Installation			
	-						
		FABRIC	ATION AND O	THER DOCUMENTS			
7	DCL493-11	0	10/04/2017	Document Control List for External Attachment Provisions Fabrication			

	DCL REVISION CONTROL						
DCL	DCL REV.	REVISION	APPROVED	DESCRIPTION			
REV.	DATE	BY	BY	DESCRIPTION			
0	19/05/2002	Steven Fahey	TCCA - PNR	Original			
1	21/06/2002	Steven Fahey	TCCA - PNR	Barrel nut hole re-oriented horizontally; flange thickness reduced.			
2	25/06/2002	Steven Fahey	TCCA - PNR	Reference test report added.			
3	19/07/2002	Steven Fahey	TCCA - PNR	Maintenance instructions added.			
4	03/06/2004	Steven Fahey	TCCA - PNR	New address.			
5	20/07/2004	Steven Fahey	TCCA - PNR	Maintenance instructions updated.			
6	10/05/2006	Jeff Clarke	TCCA - PNR	Manufacturing changes to accommodate CNC machining. Maintenance instructions changed to ICA.			
7	10/04/2017	Jeff Clarke	TCCA - Pacific	Renumbered from DCL493. Format changed. New address. Fabrication drawings and reports moved to DCL493-11.			
-		* :					

APPROVAL: Aero Design Ltd. CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION 9888A Malaspina Road Powell River, BC, Canada, V8A 0G3 Tel: 604.483.2376 www.aerodesign.ca PACIFIC REGION **Bell 206L Series** OCT 0 5 2017 **External Attachment Provisions Installation** (Configuration A) Document Control List Number Revision Sheet DCL493-1 SHOD-YAF ISSUE 10 1 of 1

(The Current Approval/Configuration Control List for Fabricated Parts, Assemblies and Other Documents and a Complete Listing of the Applicable Design Compliance Documents)

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT			
REV.	NO.	REV.	DATE	DOCOMENT CONTENT			
	FABRICATION AND ASSEMBLY DOCUMENTS						
0	49311	5	09/10/2016	Forward Fitting Fabrication			
0	49312	5	09/10/2016	Aft Fitting Fabrication			
0	49320	2	01/10/2016	Barrel Nut			
	4	DESI	GN COMPLIAN	NCE DOCUMENTS			
0	ER493.01	1	09/05/2002	Engineering Report			
0	ER493.03	0	05/06/2002	Engineering Report – Flange reduction			
0	261.02	0	25/07/1997	Engineering Report – Honeycomb Insert load test			
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	DCL REVISION CONTROL						
DCL	DCL REV.	REVISION	APPROVED	DESCRIPTION			
REV.	DATE	BY	BY	DESCRIPTION			
0	10/04/2017	Jeff Clarke	TCCA - Pacific	Original. Documents transferred from DCL493 Rev. 6.			



(Listing of Current Approved and Accepted Documents)

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT			
REV.	NO.	REV.	DATE	DOCUMENT CONTENT			
	DOCUMENTS SITED ON THE APPROVAL DOCUMENT						
4	FMS606.01	3	22/01/2017	Flight Manual Supplement			
4	ICA492.90	2	04/02/2017	Instructions for Continued Airworthiness			
	INSTALLATION DOCUMENTS						
3	60601	2	21/06/2007	Side Mounted Cargo Basket Installation			
		FABRIC	ATION AND O	THER DOCUMENTS			
2	DCL492-1	1	28/09/2007	Document Control List for Side Mounted Cargo Basket Assembly			
0	ER606.01	0	30/03/2004	Engineering Report			
0	ER606.02	0	01/04/2004	Engineering Report – Load Test			

	DCL REVISION CONTROL						
DCL	DCL REV.	REVISION	APPROVED	DESCRIPTION			
REV.	DATE	BY	BY	DESCRIPTION			
0	31/05/2004	Jeff Clarke	TCCA - PNR	Original			
-1	20/07/2004	Jeff Clarke	(check)	Maintenance instructions updated			
2	10/05/2006	Jeff Clarke	TCCA - PNR	External Attachment Provisions moved to DCL700. Maintenance Instructions replaced with ICA492.90. Fabrication documents moved to DCL492-1			
3	28/09/2007	Jeff Clarke	TCCA - PNR	Changes for pocked mounting beams.			
4	11/04/2017	Jeff Clarke	TCCA - Pacific	Format changed. New address.			
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(Listing of Current Approved and Accepted Documents)

DCL	DOCUMENT	DOC	DOC REV.	DOGULATIVE CONTENT			
REV.	NO.	REV.	DATE	DOCUMENT CONTENT			
	DOC	UMENTS	SITED ON TH	E APPROVAL DOCUMENT			
2	FMS606.01	3	22/01/2017	Flight Manual Supplement			
2	ICA606.90	3	04/02/2017	Instructions for Continued Airworthiness			
	INSTALLATION DOCUMENTS						
0	60603	0	18/08/2004	Side Mounted Cargo Basket Installation			
		FABRIC	ATION AND O	THER DOCUMENTS			
0	60630	0	11/08/2004	Cargo Basket Assembly			
0	60631	0	12/08/2004	Cargo Basket Body			
0	60632	0	12/08/2004	Cargo Basket Lid			
	Continued						

	DCL REVISION CONTROL						
DCL	DCL REV.	REVISION	APPROVED	DESCRIPTION			
REV.	DATE	BY	BY	DESCRIPTION			
0	31/05/2004	Jeff Clarke	TCCA - PNR	Original			
1	20/07/2004	Jeff Clarke	DAR 290M	Alternate mounting beams added.			
2	11/04/2017	Jeff Clarke	TCCA - Pacific	Format changed. New address.			

APPROVAL:			
CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION PACIFIC REGION	9888A Ma Powell River, BC	esign Ltd. laspina Road , Canada, V8A 0G3 www.aerodesign.ca	
OCT 0 5 2017	Bell 407 Side-Mounted Cargo Bas	sket Installa	tion
APPROVED	Document Control List Number	Revision	Sheet
CERTIFICATE NO. SHOO-48 ISSUE/C	DCL606-1	2	1 of 2

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT
REV.	NO.	REV.	DATE	DOCUMENT CONTENT
	FABRIC	ATION A	ND ASSEMBLY	DOCUMENTS (CONTINUED)
0	60640	0	12/08/2004	Basket Components - Rim
0	60641	0	12/08/2004	Basket Components – End Hoop Assembly
0	60642	0	12/08/2004	Basket Components – Attachment Hoop Assembly
0	60643	0	12/08/2004	Basket Components – Spine
0	60644	0	12/08/2004	Basket Components – Lug
0	60646	0	12/08/2004	Basket Components – Mounting Plate
0	60647	0	18/08/2004	Basket Components – Bushing
0	60648	0	12/08/2004	Basket Components – Hoop
0	60649	0	12/08/2004	Basket Components – Step Brace
0	49212	0	10/05/2002	Basket Components – Rim
0	49213	1	07/05/2004	Basket Components – Lid Brace
0	49215	0	10/05/2002	Basket Components – Lug
0	49216	0	10/05/2002	Basket Components – Lug
0	49218	1	04/05/2006	Placard
0	49221	2	14/10/2004	Support Beams
1	49222	1	08/12/2006	Support Beams (Steel)
0	36255	1	03/06/2004	Handle Assembly
0	36261	1	03/06/2004	Handle Bar Assembly
0	36262	1	03/06/2004	Handle Bracket Assembly
0	36271	0	17/05/2002	Handle Lever
0	36272	0	17/05/2002	Basket Bracket
0	36273	0	17/05/2002	Lid Bracket
0	36274	0	17/05/2002	Bushing
0	36275	1	03/06/2004	Bushing
0	36276	0	17/05/2002	Spring Hook
0	36277	0	17/05/2002	Handle Bar
0	36278	1	13/04/2004	Spring
0	36280	2	28/04/2004	Brace
		DESIG	N COMPLIAN	ICE DOCUMENTS
0	ER606.01	0	30/03/2004	Engineering Report – Basket Installation
0	ER606.02	0.	01/04/2004	Engineering Report – Load Test
0	ER606.03	0	18/01/2005	Engineering Report – High Mount Basket
0	TR606.04	0		Test Report – Beam Load Test
0	TR606.05	0	18/01/2005	Test Report – Basket Assembly Load Test
0	ER492.01	0	09/05/2002	Engineering Report – Basket Installation
0	ER492.02	0	09/05/2002	Engineering Report – Basket Load Tests
1	ER492.03	0	15/05/2006	Engineering Report – Steel Beams
0	ER493.01	1	09/05/2002	Engineering Report – External Attachment Provisions
0	ER493.03	0	05/06/2002	Test Report – Load Test External Attachment Provisions
0	TR362.02	2	04/12/2000	Test Report – Basket Assembly Load Test

Document Control List Number	Revision	Sheet
DCL606-1	2	2 of 2
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(Listing of Current Approved and Accepted Documents)

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT
REV.	NO.	REV.	DATE	DOCUMENT CONTENT
	DOC	UMENTS	SITED ON TH	E APPROVAL DOCUMENT
5	ICA623.91	2	11/02/2017	Instructions for Continued Airworthiness
	è.			
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		11	NSTALLATION	DOCUMENTS
5	62302	2	01/10/2016	Auxiliary Step Installation
		FABRIC	ATION AND O	THER DOCUMENTS
5	62340	1	25/08/2014	Auxiliary Step Fabrication
2	ER623.01	1	07/06/2010	Engineering Report
5	MCR62340-1	0	29/08/2014	Minor Change Report

	DCL REVISION CONTROL						
DCL	DCL REV.	REVISION	APPROVED	DESCRIPTION			
REV.	DATE	BY	BY	DESCRIPTION			
0	13/01/2005	Jeff Clarke	TCCA - PNR	Original.			
1	21/09/2006	Jeff Clarke	DAR 290M	Sided assembly changed to single assembly.			
2	05/05/2010	Jeff Clarke	DAR 290M	New aluminum/stainless steel assembly added.			
3	17/11/2010	Jeff Clarke	DAR 290M	ICA added.			
4	11/04/2017	Jeff Clarke	TCCA - PNR	Bell 206B added. Original configuration removed.			
5	31/05/2017	Jeff Clarke	TCCA - Pacific	Format changed. New address.			
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APPROVAL: Aero Design Ltd. CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION 9888A Malaspina Road Powell River, BC, Canada, V8A 0G3 PACIFIC REGION Tel: 604.483.2376 www.aerodesign.ca Bell 206B, 206L Series, 407 OCT 0 5 2017 **Auxiliary Step Installation Document Control List Number** Revision Sheet **DCL623** 5 1 of 1 ISSUE/O

(The Current Approval/Configuration Control List for Fabricated Parts, Assemblies and Other Documents and a Complete Listing of the Applicable Design Compliance Documents)

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT			
REV.	NO.	REV.	DATE	DOCOMENT CONTENT			
FABRICATION AND ASSEMBLY DOCUMENTS							
3	69810	4	23/10/2016	Cargo Basket Assembly			
3	69811	4	23/10/2016	Basket Fabrication			
3	69812	4	11/07/2014	Lid Fabrication			
3	69821	2	19/11/2016	Forward Attachment Hoop			
3	69822	2	23/10/2016	Aft Attachment Hoop			
3	69823	2	22/05/2014	Lugs			
3	69827	3	23/10/2016	Placard			
3	49210	2	22/05/2014	Ноор			
3	49215	1	13/03/2014	Spacer			
3	49216	1	13/03/2014	Spacer			
3	84240	0	21/05/2014	Lid Brace Installation			
3	84241	0	10/02/2017	Placard Replacement			
3	84255	2	13/03/2014	Handle Assembly			
3	84261	2	13/03/2014	Handle Bar Assembly			

	DCL REVISION CONTROL						
DCL	DCL REV.	REVISION	APPROVED	DESCRIPTION			
REV.	DATE	BY	BY	DESCRIPTION			
0	03/05/2006	Jeff Clarke	TCCA - PNR	Original			
1	28/09/2007	Jeff Clarke	TCCA - PNR	Basket lug configuration updated; joggled aft hoop			
2	27/10/2011	Jeff Clarke	DAR 290M	Cargo load increased to 300 lbs; handle configuration updated; hinge attachment updated.			
3	31/05/2017	Jeff Clarke	TCCA - Pacific	DCL format updated. New address. Minor changes.			
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				7.2			



Sheet

DCL	DOCUMENT	DOC	DOC REV.	
REV.	NO.	REV.	DATE	DOCUMENT CONTENT
				DOCUMENTS (CONTINUED)
3	84262	2	14/02/2014	Basket Handle Provisions Assembly
3	84263	0	14/02/2014	Lid Handle Provisions Assembly
3	84265	2	13/03/2014	Handle Lever
3	84267	1	13/03/2014	Handle Bracket
3	84272	1	13/03/2014	Bushing
3	36273	2	18/02/2014	Lid Bracket
3	36274	3	13/03/2014	Bushing
3	36275	4	04/10/2013	Bushing
3	36277	1	13/03/2014	Handle Bar
3	36278	4	01/12/2014	Spring
3	36280	3	13/03/2014	Lid Brace Assembly
		DESIG	GN COMPLIAN	ICE DOCUMENTS
0	ER698.01	0	05/04/2006	Engineering Report
2	ER698.06	0	14/11/2011	Engineering Report – Cargo load increase
2	ER842.01	0	14/10/2011	Engineering Report – New handle configuration
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Document Control List Number	Revision	Sheet
DCL698-1	3	2 of 2

(Listing of Current Approved and Accepted Documents)

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT			
REV.	NO.	REV.	DATE	DOCUMENT CONTENT			
FABRICATION AND ASSEMBLY DOCUMENTS							
5	69830	5	19/11/2016	Forward Mounting Beam			
5	69831	4	19/11/2016	Aft Mounting Beam			
5	69878	0	19/11/2016	Spring			
DESIGN COMPLIANCE DOCUMENTS							
0	ER698.02	0	05/04/2006	Engineering Report			
0	TP698.03	0	18/05/2006	Test Plan			
2	ER698.04	0	09/11/2006	Engineering Report – 2 keyway modification			
4	ER698.06	0	14/11/2011	Engineering Report – Cargo load increase			
	,						
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	DCL REVISION CONTROL						
DCL	DCL REV. REVISION		APPROVED	DESCRIPTION			
REV.	DATE	BY	BY	DESCRIPTION			
0	03/05/2006	Jeff Clarke	TCCA - PNR	Original.			
1	21/09/2006	Jeff Clarke	DAR 290M	Beams modified to clear sliding door.			
2	28/09/2007	Jeff Clarke	TCCA - PNR	Beams modified for 2 keyway attachment.			
3	02/12/2008	Jeff Clarke	TCCA - PNR	Step installation and stowage keyways added.			
4	27/10/2011	Jeff Clarke	DAR 290M	Cargo load increase to 300 lbs.			
5	31/05/2017	Jeff Clarke	TCCA - Pacific	Format changed. New address.			
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(Listing of Current Approved and Accepted Documents)

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT			
REV.	NO.	REV.	DATE	DOCOMENT CONTENT			
	DOCUMENTS SITED ON THE APPROVAL DOCUMENT						
2	FMS700.91	1	22/01/2017	Flight Manual Supplement			
2	ICA700.90	1	09/02/2017	Instructions for Continued Airworthiness			
	-						
	INSTALLATION DOCUMENTS						
2	60602	1	23/10/2016	External Attachment Provisions Installation			
		FABRIC	ATION AND O	THER DOCUMENTS			
2	DCL700-11	0	25/06/2017	Document Control List for External Attachment Provisions Fabrication			

	DCL REVISION CONTROL						
DCL	DCL REV.	REVISION	APPROVED	DESCRIPTION			
REV.	DATE	BY	BY	DESCRIPTION			
0	10/05/2006	Jeff Clarke	TCCA - PNR	Original issue.			
1	28/09/2007	Jeff Clarke	TCCA - PNR	Angle of aft block updated.			
2	10/04/2017	Jeff Clarke	TCCA - Pacific	Renumbered from DCL700. Format changed. New address. Fabrication drawings and reports moved to DCL700-11.			

APPROVAL: CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION PACIFIC REGION	Aero Design Ltd. 9888A Malaspina Road Powell River, BC, Canada, V8A 0G3 Tel: 604.483.2376 www.aerodesign.ca			
OCT 0 5 2017	Bell 407 External Attachment Provisions Installation (Configuration A)			
BY like	Document Control List Number	Revision	Sheet	
CERTIFICATE NO. ISSUE/O	DCL700-1	2	1 of 1	

(The Current Approval/Configuration Control List for Fabricated Parts, Assemblies and Other Documents and a Complete Listing of the Applicable Design Compliance Documents)

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT
REV.	NO.	REV.	DATE	DOCOMENT CONTENT
	1	FABRICA [*]	TION AND ASS	SEMBLY DOCUMENTS
0	60620	2	09/10/2016	Aft Block Fabrication
0	60621	2	09/10/2016	Forward Fitting Fabrication
0	60622	2	09/10/2016	Barrel Nut
0	60624	1	09/10/2016	Barrel Nut
		DESIG	GN COMPLIAN	ICE DOCUMENTS
0	ER606.01	0	30/03/2004	Engineering Report
0	ER606.02	0	01/04/2004	Engineering Report – Load Test
0	ER493.01	1	09/05/2002	Engineering Report
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	DCL REVISION CONTROL					
DCL REV.	DCL REV. DATE	REVISION BY	APPROVED BY	DESCRIPTION		
0	10/04/2017	Jeff Clarke	TCCA - Pacific	Original. Documents transferred from DCL700 Rev. 1.		

CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION PACIFIC REGION	Aero Design Ltd. 9888A Malaspina Road Powell River, BC, Canada, V8A OG3 Tel: 604.483.2376 www.aerodesign.ca Bell 407 External Attachment Provisions Fabrication		
OCT 0 5 2017			
RV CUI	Document Control List Number	Revision	Sheet
CERTIFICATE NO ISSUE/O	DCL700-11	0	1 of 1

(Listing of Current Approved and Accepted Documents)

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT
REV.	NO.	REV.	DATE	DOCOMENT CONTENT
	DOC	UMENTS	SITED ON TH	E APPROVAL DOCUMENT
5	FMS701.90	4	22/01/2017	Flight Manual Supplement
5	ICA698.90	4	10/02/2017	Instructions for Continued Airworthiness
		11	NSTALLATION	DOCUMENTS
5	70101	5	21/11/2016	Quick Release Cargo Basket Installation
5	70102	1	21/11/2016	Quick Release Mounting Provisions Installation
2	SI698.91	0	19/09/2008	Service Instructions – Sliding Door Modification
	4	FABRIC	ATION AND O	THER DOCUMENTS
5	DCL698-1	3	31/05/2017	Document Control List for Quick Release Cargo Basket Fabrication
5	DCL698-2	5	31/05/2017	Document Control List for Quick Release Mounting Beams Assembly

	DCL REVISION CONTROL					
DCL	DCL REV.	REVISION	APPROVED	DESCRIPTION		
REV.	DATE	BY	BY	DESCRIPTION		
0	10/05/2006	Jeff Clarke	TCCA - PNR	Original issue.		
1	28/09/2007	Jeff Clarke	TCCA - PNR	Upper basket attachment updated; eligible mounting beams added.		
2	23/09/2008	Jeff Clarke	DAR 290M	SI for sliding door added.		
3	02/12/2008	Jeff Clarke	TCCA - PNR	Provisions moved to new drawing 70102.		
4	27/10/2011	Jeff Clarke	TCCA - PNR	Load limit increased to 300 lbs.		
5	25/06/2017	Jeff Clarke	TCCA - Pacific	Format changed. New address.		
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Aero Design Ltd.

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Bell 407

Quick Release Cargo Basket Installation (Configuration D)

Document Control List Number

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(Listing of Current Approved and Accepted Documents)

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT		
REV.	NO.	REV.	DATE	DOCUMENT CONTENT		
	DOC	UMENTS	SITED ON TH	E APPROVAL DOCUMENT		
4	FMS702.90	4	22/01/2017	Flight Manual Supplement		
4	ICA698.90	4	10/02/2017	Instructions for Continued Airworthiness		
	INSTALLATION DOCUMENTS					
4	70201	5	04/12/2016	Quick Release Cargo Basket Installation		
4	70202	1	04/12/2016	Quick Release Mounting Provisions Installation		
	п	FABRIC	ATION AND O	THER DOCUMENTS		
4	DCL698-1	3	31/05/2017	Document Control List for Quick Release Cargo Basket Fabrication		
4	DCL698-2	5	31/05/2017	Document Control List for Quick Release Mounting Beams Assembly		

	DCL REVISION CONTROL						
DCL	DCL REV. REVISION A		APPROVED	DESCRIPTION			
REV.	DATE	BY	BY	DESCRIPTION			
0	10/05/2006	Jeff Clarke	TCCA - PNR	Original issue.			
1	28/09/2007	Jeff Clarke	TCCA - PNR	Upper basket attachment updated; eligible mounting beams added.			
2	02/12/2008	Jeff Clarke	TCCA - PNR	Provisions moved to new drawing 70202.			
3	27/10/2011	Jeff Clarke	TCCA - PNR	Load limit increased to 300 lbs.			
4	25/06/2017	Jeff Clarke	TCCA - Pacific	Format changed. New address.			
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(The Current Approval/Configuration Control List for Fabricated Parts, Assemblies and Other Documents and a Complete Listing of the Applicable Design Compliance Documents)

DCL REV.	DOCUMENT NO.	DOC REV.	DOC REV. DATE	DOCUMENT CONTENT			
	INSTALLATION DOCUMENTS						
8	70408	1	29/05/2014	Installation, Hangar Wheel			
	FABRICATION AND ASSEMBLY DOCUMENTS						
4	70401	1	04/12/2008	Open Forward End Modification (Bell 206L/407 Fixed and McDonnell Douglas MD600N Quick Release Only)			
8	70402	2	29/05/2014	Lid Door Modification			
8	70403	5	29/05/2014	Auxiliary Latch Modification			
11	70404	2	01/01/2017	Open Forward End Modification (Bell 206L/407 Quick Release Only)			
8	70405	4	29/05/2014	Lid Step Modification			

	DCL REVISION CONTROL						
DCL	DCL REV.	REV. REVISION A		DESCRIPTION			
REV.	DATE	BY	BY	DESCRIPTION			
0	03/05/2006	Jeff Clarke	TCCA - PNR	Original issue.			
1	21/09/2006	Jeff Clarke	DAR 290M	Add 70404 and 70405			
2	19/03/2008	Jeff Clarke	TCCA - PNR	Update eligibilities. Front end cutout modified 70404.			
3	31/07/2008	Jeff Clarke	TCCA - PNR	Add EC135 front end cutout drawing 70407.			
4	22/12/2008	Jeff Clarke	TCCA - PNR	Add MD600N to 70401.			
5	22/12/2008	Jeff Clarke	TCCA - PNR	Add Bell 206B to 70406.			
6	29/04/2010	Jeff Clarke	DAR 290M	Add hangar wheel.			
7	27/10/2011	Jeff Clarke	TCCA - PNR	Update eligibilities. Add gas spring modification.			
8	02/06/2014	Jeff Clarke	TCCA - PNR	New address. Hangar wheel updated. Update eligibility requirements on 70402/03/05.			
9	11/07/2014	Jeff Clarke	TCCA - PNR	Add long/extra large configuration to 70406.			
10	18/12/2014	Jeff Clarke	TCCA - PNR	Add Bell 205/212/412 to 70407.			
11	25/06/2017	Jeff Clarke	TCCA - Pacific	Format changed, 206L/407 drawings updated.			



DCL	DOCUMENT	DOC	DOC REV.	
REV.	NO.	REV.	DATE	DOCUMENT CONTENT
	FABRIC	ATION A	ND ASSEMBLY	DOCUMENTS (CONTINUED)
				Open Forward End Modification
9	70406	3	14/07/2014	(Eurocopter AS350/AS355 and Bell 206B Quick Release Only)
				Open Forward End Modification
10	70407	1	16/12/2014	(Eurocopter EC135 Quick Release and Bell 205/212/412
				Quick Release Only)
11	70411	1	01/01/2017	Open Forward End Modification (Bell 206L/407 Large Quick Release Only)
7	70412	0	12/10/2011	Gas Spring Modification
7	70422	0	12/10/2011	Gas Spring Provisions Modification
11	70428	2	25/06/2017	Assembly, Hangar Wheel
8	70438	1	29/05/2014	Parts, Hangar Wheel
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	,	DESIG	SN COMPLIAN	ICE DOCUMENTS
0	ER704.02	0	24/02/2006	Engineering Report
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Document Control List Number	Revision	Sheet
DCL704	11	2 of 2

(Listing of Current Approved and Accepted Documents)

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT			
REV.	NO.	REV.	DATE	DOCOMENT CONTENT			
	DOCUMENTS SITED ON THE APPROVAL DOCUMENT						
2	ICA766.90	1	10/02/2017	Instructions for Continued Airworthiness			
2	FMS766.91	1	22/01/2017	Flight Manual Supplement – Bell 407			
2	FMS766.92	1	22/01/2017	Flight Manual Supplement - Bell 206L Series			
INSTALLATION DOCUMENTS							
2	76601	1	21/08/2016	Quick Release Cargo Basket Installation			
0	SI698.91	0	19/09/2008	Service Instructions – Sliding Door Modification			
FABRICATION AND OTHER DOCUMENTS							
2	DCL766-11	1	25/06/2017	Document Control List for Quick Release Cargo Basket Fabrication			

DCL REVISION CONTROL					
DCL	DCL REV.	REVISION	APPROVED	DESCRIPTION	
REV.	DATE	BY	BY	DESCRIPTION	
0	10/05/2006	Jeff Clarke	TCCA - PNR	Original issue.	
1	23/09/2008	Jeff Clarke	DAR 290M	SI for sliding door added.	
2	25/06/2017	Jeff Clarke	TCCA - Pacific	Format changed. New address.	
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CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION PACIFIC REGION		Aero Design Ltd. 9888A Malaspina Road Powell River, BC, Canada, V8A 0G3 Tel: 604.483.2376 www.aerodesign.ca					
	OCT 0 5 2	.017	Bell 206L Series & 407 High Side Mounted Cargo Basket Installation				
	, ppp OV	ED -	(407 Conf	iguration E / 206L	Configurat	ion D)	
	APPROV		Document C	ontrol List Number	Revision	Sheet	
	CERTIFICATE NO.	ISSUE/O	DCL	766-1	1	1 of 1	

(The Current Approval/Configuration Control List for Fabricated Parts, Assemblies and Other Documents and a Complete Listing of the Applicable Design Compliance Documents)

DCL REV.	DOCUMENT NO.	DOC REV.	DOC REV.	DOCUMENT CONTENT					
	FABRICATION AND ASSEMBLY DOCUMENTS								
1	76610	1	09/08/2016	Cargo Basket Assembly					
1	76611	1	25/06/2017	Basket Fabrication					
1	76612	0	09/08/2016	Lid Fabrication					
1.	76624	0	25/06/2017	Forward Attachment Hoop					
1	76625	0	25/06/2017	Aft Attachment Hoop					
1	76623	1	29/09/2016	Ноор					
1	76627	1	09/08/2016	Placard					
1	76630	1	26/09/2016	Support Beams					
1	49215	1	13/03/2014	Spacer					
1	49216	1	13/03/2014	Spacer					
1	69823	2	22/05/2014	Lugs					
1	84240	0	21/05/2014	Lid Brace Installation					
1	84255	2	13/03/2014	Handle Assembly					

*	DCL REVISION CONTROL					
DCL REV.				DESCRIPTION		
0	03/05/2006	Jeff Clarke	- TCCA - PNR	Original issue.		
1	25/06/2017	Jeff Clarke	TCCA - Pacific	Renumbered from 766-2. DCL format updated. New address. Handle configuration updated. Minor changes.		
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CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION PACIFIC REGION	9888A M Powell River, B	lalaspina Road BC, Canada, VBA 0G3 6 www.aerodesign.ca	
OCT 0 5 2017	Bell 206L Serie Quick Release Cargo B		bly
CERTIFICATE NO. SHOW 48 ISSUE/o	DCL766-11	Revision 1	Sheet 1 of 2

DCL	DOCUMENT	DOC	DOC REV.	DOGUMENT CONTENT
REV.	NO.	REV.	DATE	DOCUMENT CONTENT
	FABRIC	ATION A	ND ASSEMBLY	DOCUMENTS (CONTINUED)
1	84261	2	13/03/2014	Handle Bar Assembly
1	84262	2	14/02/2014	Basket Handle Provisions Assembly
1	84263	0	14/02/2014	Lid Handle Provisions Assembly
1	84265	2	13/03/2014	Handle Lever
1	84267	1	13/03/2014	Handle Bracket
1	84272	1	13/03/2014	Bushing
1	36273	2	18/02/2014	Lid Bracket
1	36274	3	13/03/2014	Bushing
1	36275	4	04/10/2013	Bushing
1	36277	1	13/03/2014	Handle Bar
1	36278	4	01/12/2014	Spring
1	36280	3	13/03/2014	Lid Brace Assembly
				A CONTRACTOR OF THE CONTRACTOR
		DESI	GN COMPLIAN	NCE DOCUMENTS
0	ER766.01	0	25/09/2007	Engineering Report
0	TP766.02	0	26/09/2007	Load Test Plan and Report
1	ER766.03	0	25/06/2017	Engineering Report - Minor Changes
0	ER606.03	0	18/01/2005	Engineering Report
1	ER842.01	0	14/10/2011	Engineering Report – New handle configuration
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DCL766-11 2 of 2

DCL	DOCUMENT	DOC	DOC REV.	
REV.	NO.	REV.	DATE	DOCUMENT CONTENT
	DOC	UMENTS	SITED ON TH	E APPROVAL DOCUMENT
1	ICA800.90	2	13/01/2015	Instructions for Continued Airworthiness
1	FMS701.90	4	22/01/2017	Bell 407 Flight Manual Supplement
1	FMS702.90	4	22/01/2017	Bell 206L Flight Manual Supplement
		11	STALLATION	DOCUMENTS
1	80002	1	19/11/2016	Quick Release Step Installation
		*		,
	,	FABRIC	ATION AND O	THER DOCUMENTS
1	DCL800-12	1	31/05/2017	Document Control List for Quick Release Step Fabrication

	DCL REVISION CONTROL					
DCL	DCL REV.	REVISION	APPROVED	DESCRIPTION		
REV.	DATE	BY	BY	DESCRIPTION		
0	02/12/2008	Jeff Clarke	TCCA - PNR	Original.		
1	31/05/2017	Jeff Clarke	TCCA - Pacific	Format changed. New address.		
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APPROVAL: CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION PACIFIC REGION	9888A Mal Powell River, BC,	sign Ltd. aspina Road Canada, V8A 0G3 www.aerodesign.ca	
OCT 0 5 2017	Bell 206L Series Quick Release Step I		
BY LOCAL TO STATE OF THE STATE	Document Control List Number	Revision	Sheet
CERTIFICATE NO.	DCL800-2	1	1 of 1

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DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT
REV.	NO.	REV.	DATE	DOCOMENT CONTENT
		FABRICAT	TION AND ASS	SEMBLY DOCUMENTS
1	80010	2,	11/12/2014	Step Assembly
1	80020	1	10/12/2014	Step End Fabrication
	8	DESIG	GN COMPLIAN	NCE DOCUMENTS
0	ER800.02	0	12/11/2008	Engineering Report
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	DCL REVISION CONTROL						
DCL	DCL REV.	OCL REV. REVISION A		DESCRIPTION			
REV.	DATE	BY	BY	DESCRIPTION			
0	02/12/2008	Jeff Clarke	TCCA - PNR	Original.			
1	31/05/2017	Jeff Clarke	TCCA - Pacific	Format changed. New address.			
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CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION PACIFIC REGION	9888A Mal Powell River, BC,	sign Ltd. aspina Road Canada, VBA 0G3 www.aerodesign.ca	
OCT 0 5 2017	Bell 206L Series Quick Release Step F		
CERTIFICATE NO. SHOW - YE ISSUE/6	DCL800-12	Revision 1	1 of 1

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT
REV.	NO.	REV.	DATE	DOCUMENT CONTENT
	DOC	UMENTS	SITED ON TH	E APPROVAL DOCUMENT
1	FMS701.90	4	22/01/2017	Flight Manual Supplement
1	ICA698.90	4	10/02/2017	Instructions for Continued Airworthiness
		11	NSTALLATION	DOCUMENTS
1	94501	1	04/12/2016	Quick Release Cargo Basket Installation
1	70102	1	21/11/2016	Quick Release Mounting Provisions Installation
0	SI698.91	0	19/09/2008	Service Instructions – Sliding Door Modification
		FABRIC	ATION AND O	THER DOCUMENTS
1	DCL945-10	1	25/06/2017	Document Control List for Quick Release Cargo Basket Fabrication
1	DCL698-2	5	31/05/2017	Document Control List for Quick Release Mounting Beams Assembly
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	DCL REVISION CONTROL					
DCL	DCL REV.	REVISION	APPROVED	DESCRIPTION		
REV.	DATE	BY	BY	DESCRIPTION		
0	10/05/2006	Jeff Clarke	TCCA - PNR	Original issue.		
1	25/06/2017	Jeff Clarke	TCCA - Pacific	Format changed. New address.		
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CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION PACIFIC REGION			Aero Design Ltd. 9888A Malaspina Road Powell River, BC, Canada, V8A 0G3 Tel: 604.483.2376 www.aerodesign.ca				
	OCT 0 5 2017		Bell 407 Quick Release Cargo Basket Installation				
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	CERTIFICATE NO.	DCLS	945-1	1	1 of 1		

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT
REV.	NO.	REV.	DATE	DOCONIENT CONTENT
	DOC	UMENTS	SITED ON TH	E APPROVAL DOCUMENT
1	FMS702.90	4	22/01/2017	Flight Manual Supplement
1	ICA698.90	4	10/02/2017	Instructions for Continued Airworthiness
		11	NSTALLATION	DOCUMENTS
1	94502	1	04/12/2016	Quick Release Cargo Basket Installation
1	70202	1	04/12/2016	Quick Release Mounting Provisions Installation
	Y		1	
		FABRIC	ATION AND O	THER DOCUMENTS
1	DCL945-10	1	25/06/2017	Document Control List for Quick Release Cargo Basket Fabrication
1	DCL698-2	5	31/05/2017	Document Control List for Quick Release Mounting Beams Assembly

	DCL REVISION CONTROL							
DCL	DCL REV.	REVISION	APPROVED	DESCRIPTION				
REV.	DATE	BY	BY	DESCRIPTION				
. 0	27/10/2011	Jeff Clarke	TCCA - PNR	Original issue.				
1	25/06/2017	Jeff Clarke	TCCA - Pacific	Format changed. New address.				
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,	PACIFIC REGION		Tel: 604.483.2376	www.aerodesign.ca	•			
	OCT 0 F 2017		Bell 206L Ser	ies				
	OCT 0 5 2017	Q	Quick Release Cargo Basket Installation					
	APPROVED		(Configuratio	n E)				
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	CERTIFICATE NO.	-	CLOAF	4				
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(The Current Approval/Configuration Control List for Fabricated Parts, Assemblies and Other Documents and a Complete Listing of the Applicable Design Compliance Documents)

DCL REV.	DOCUMENT NO.	DOC REV.	DOC REV.	DOCUMENT CONTENT			
		FABRICA'	TION AND AS	SEMBLY DOCUMENTS			
1	94510	1	04/12/2016	Cargo Basket Assembly			
1	94511	1	04/12/2016	Basket Fabrication			
1	69812	. 4	11/07/2014	Lid Fabrication			
1	94520	1	04/12/2016	Ноор			
1	94521	1	19/11/2016	Forward Attachment Hoop			
1	94522	1	23/10/2016	Aft Attachment Hoop			
1	94527	1 .	04/12/2016	Placard			
1	69823	2	22/05/2014	Lugs			
1	49215	1	13/03/2014	Spacer			
1 .	49216	1	13/03/2014	Spacer			
1 1	84240	0	21/05/2014	Lid Brace Installation			
1	84255	2	13/03/2014	Handle Assembly			
1	84261	2	13/03/2014	Handle Bar Assembly			
1	84262	2	14/02/2014	Basket Handle Provisions Assembly			

	DCL REVISION CONTROL							
DCL REV.	DCL REV. DATE	REVISION BY	APPROVED BY	DESCRIPTION				
0	03/05/2006	Jeff Clarke	TCCA - PNR	Original issue.				
1	25/06/2017	Jeff Clarke	TCCA - Pacific	DCL format updated. New address. Minor changes.				
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CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION PACIFIC REGION	9888A Mi Powell River, Bo	esign Ltd alaspina Road C, Canada, V8A 0G3 6 www.aerodesign.c	
OCT 0 5 2017	Bell 206L Series Quick Release Cargo Ba		nbly
CERTIFICATE NO. SHOD-Y & ISSUE/o	DCL945-10	Revision 1	Sheet 1 of 2

DCL	DOCUMENT	DOC	DOC REV.	
REV.	NO.	REV:	DATE	DOCUMENT CONTENT
	L			DOCUMENTS (CONTINUED)
1	84263	0	14/02/2014	Lid Handle Provisions Assembly
1	84265	2	13/03/2014	Handle Lever
1	84267	1	13/03/2014	Handle Bracket
1	84272	1	13/03/2014	Bushing
1	36273	. 2	18/02/2014	Lid Bracket
1	36274	3	13/03/2014	Bushing
1	36275	4	04/10/2013	Bushing
1	36277	1	13/03/2014	Handle Bar
1	36278	4	01/12/2014	Spring
1	36280	3	13/03/2014	Lid Brace Assembly
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0	ER945.01	0	14/10/2011	Engineering Report
0	FTP945.03	1	08/11/2011	Flight Test Plan and Report
0	ER842.01	0	14/10/2011	Engineering Report – New handle configuration
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Document Control List Number	Revision	Sheet
DCL945-10	1	2 of 2

DCL	DOCUMENT	DOC	DOC REV.	
REV.	NO.	REV.	DATE	DOCUMENT CONTENT
	DOC	UMENTS	SITED ON TH	E APPROVAL DOCUMENT
1	FMS701.90	4	22/01/2017	Flight Manual Supplement
1	ICA698.90	4	10/02/2017	Instructions for Continued Airworthiness
		11	NSTALLATION	DOCUMENTS
1	94601	1	04/12/2016	Quick Release Cargo Basket Installation
1	70102	1	21/11/2016	Quick Release Mounting Provisions Installation
0	SI698.91	0	19/09/2008	Service Instructions – Sliding Door Modification
		FABRIC	ATION AND O	THER DOCUMENTS
1	DCL946-10	1	25/06/2017	Document Control List for Quick Release Cargo Basket Fabrication
1	DCL698-2	5	31/05/2017	Document Control List for Quick Release Mounting Beams Assembly

DCL REVISION CONTROL						
DCL	DCL REV.	REVISION	APPROVED	DESCRIPTION		
REV.	DATE	BY	BY	DESCRIPTION		
0	10/05/2006	Jeff Clarke	TCCA - PNR	Original issue.		
1	25/06/2017	Jeff Clarke	TCCA - Pacific	Format changed. New address.		
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CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION PACIFIC REGION			Aero Design Ltd. 9888A Malaspina Road Powell River, BC, Canada, V8A 0G3 Tel: 604.483.2376 www.aerodesign.ca						
ОСТ	OCT 0 5 2017		Quick I	Bell 407 Quick Release Cargo Basket Installation (Configuration G)					
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CERTIFICA	TE NO.	ISSUE/o	DCL	946-	1	1	1 of 1		

DCL	DOCUMENT	DOC	DOC REV.	DOGUMENT CONTENT
REV.	NO.	REV.	DATE	DOCUMENT CONTENT
	DOC	UMENTS	SITED ON TH	E APPROVAL DOCUMENT
1	FMS702.90	4	22/01/2017	Flight Manual Supplement
1	ICA698.90	4	10/02/2017	Instructions for Continued Airworthiness
		11	NSTALLATION	DOCUMENTS
1	94602	1	04/12/2016	Quick Release Cargo Basket Installation
1	70202	1	04/12/2016	Quick Release Mounting Provisions Installation
	,	FABRIC	ATION AND O	THER DOCUMENTS
1	DCL946-10	1	25/06/2017	Document Control List for Quick Release Cargo Basket Fabrication
1	DCL698-2	5	31/05/2017	Document Control List for Quick Release Mounting Beams Assembly
			12 VI	

DCL REVISION CONTROL					
DCL	DCL REV.	REVISION	APPROVED	DESCRIPTION	
REV.	DATE	BY	BY	DESCRIPTION	
0	27/10/2011	Jeff Clarke	TCCA - PNR	Original issue.	
1	25/06/2017	Jeff Clarke	TCCA - Pacific	Format changed. New address.	
				-4	

APPROVAL:			
CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION PACIFIC REGION	Aero Design Ltd. 9888A Malaspina Road Powell River, BC, Canada, V8A 0G3 Tel: 604,483.2376 www.aerodesign.ca		
OCT 0 5 2017	Bell 206L Ser	ries	
OCT 0 5 2017	Quick Release Cargo Basket Installation		
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- lue	Document Control List Number	Revision	Sheet
SHOD-YO ISSUE	DCL946-2	1	1 of 1

(The Current Approval/Configuration Control List for Fabricated Parts, Assemblies and Other Documents and a Complete Listing of the Applicable Design Compliance Documents)

DCL REV.	DOCUMENT NO.	DOC REV.	DOC REV.	DOCUMENT CONTENT	
	La Company of the Com	FABRICA	TION AND ASS	SEMBLY DOCUMENTS	
1	94610	1	31/12/2016	Cargo Basket Assembly	
1	94611	1	01/01/2017	Basket Fabrication	
1	94612	1	01/01/2017	Lid Fabrication	
1	94620	1	04/12/2016	Ноор	
1	94621	1	06/11/2016	Brace	
1	94627	1	04/12/2016	Placard	
1	94520	1	04/12/2016	Hoop '	
1	94521	1 . 1	19/11/2016	Forward Attachment Hoop	
1	94522	1	23/10/2016	Aft Attachment Hoop	
1	69823	2	22/05/2014	Lugs	
1	49215	1	13/03/2014	Spacer	
1	49216	1	13/03/2014	Spacer	
1	84240	0	21/05/2014	Lid Brace Installation	
1	84255	2.	13/03/2014	Handle Assembly	
1	84261	2	13/03/2014	Handle Bar Assembly	

DCL REVISION CONTROL							
DCL REV.	DCL REV. DATE	REVISION BY	ВУ	DESCRIPTION			
0 -	03/05/2006	Jeff Clarke		Original issue.			
1	25/06/2017	Jeff Clarke	TCCA - Pacific	DCL format updated. New address. Minor changes.			
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DCL	DOCUMENT	DOC	DOC REV.		
REV.	NO.	REV.	DATE	DOCUMENT CONTENT	
				DOCUMENTS (CONTINUED)	
1	84262	2	14/02/2014	Basket Handle Provisions Assembly	
1	84263	0	14/02/2014	Lid Handle Provisions Assembly	
1	84265	2	13/03/2014	Handle Lever	
1	84267	1	13/03/2014	Handle Bracket	
1	84272	1	13/03/2014	Bushing	
1	36273	2	18/02/2014	Lid Bracket	
1	36274	3	13/03/2014	Bushing	
1	36275	4	04/10/2013	Bushing	
1	36277	1	13/03/2014	Handle Bar	
1	36278	4	01/12/2014	Spring	
1	36280	3	13/03/2014	Lid Brace Assembly	
	r		partie management and a second	NCE DOCUMENTS	
0	ER946.01	0	14/10/2011	Engineering Report	
0	FTP945.03	0	08/11/2011	Flight Test Plan and Report	
0	ER842.01	0	14/10/2011	Engineering Report – New handle configuration	
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DCL946-10 Revision Sheet 2 of 2

Aero Design Ltd.



9888A Malaspina Road Powell River, BC, V8A 0G3 Phone: 604-483-2376 Fax: 604-483-2372 www.aerodesign.ca

BELL 206L SERIES

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT for the INSTALLATION of the AERO DESIGN CARGO BASKET

TCCA Supplemental Type Certificate No. <u>SH00-48</u> FAA Supplemental Type Certificate No. <u>SR02253NY</u> EASA Supplemental Type Certificate No.

Sections I, II, III and IV of this document comprise the Transport Canada Approved sections of this Flight Manual Supplement. Compliance with Section I, Limitations, is mandatory.

Section V and any subsequent sections if present are Unapproved and are provided for information only.

The information and data contained in this Flight Manual Supplement supersede or supplement that contained in the basic Approved Flight Manual for the Bell 206L when fitted with the Cargo Basket. For limitations, procedures and performance not listed in this Flight Manual Supplement, refer to the Approved Flight Manual and other approved Flight Manual Supplements.

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
PACIFIC REGION

OCT 0 2 2017

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BY MANAGEMENT OF TRANSPORT
APPROVED
CERTIFICATE NO.
SHOW-48 ISSUE/C

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Record of Revisions

Revision	Issue Date	Pages Revised	Date Inserted	Ву
1	25 June 2002	1-4	(incorporated)	
2	28 Sept 2007	2, 4	(incorporated)	
3	22 Jan 2017	1, 2		
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I LIMITATIONS

- The maximum load in the AERO Design Ltd. Cargo Basket it 200 Lb. (90,9 kg).
- Flight operations limited to VFR conditions with AERO Design Ltd. Cargo Basket installed.

II NORMAL PROCEDURES

- 1. Pre-flight inspections:
 - Ensure that all cargo stored in the cargo basket does not extend outside the basket, is properly tied down and secured for flight.
 - b) Ensure that the lid of cargo basket is closed and secured.

III EMERGENCY PROCEDURES

No change from basic Approved Flight Manual.

CAUTION:

The rotorcraft glide angle is steeper than that of the basic helicopter when the AERO Design Ltd. Cargo Basket is installed.

IV PERFORMANCE

Climb performance may be reduced by up to 350 fpm.

Cruise speeds are reduced by approximately 10 mph.

V WEIGHT AND BALANCE

English Units

		Longitudinal		Lat	eral
Item	Weight	Arm	Moment	Arm	Moment
	(Lb)	(in)	(in*Lb)	(in)	(in*Lb)
Cargo Basket Installation	58.6	114.1	6684	33.6	1971
Cargo	200 (MAX)	114.1	22820	38.5	7700

Metric Units

	Longitudinal		Longitudinal		eral
Item	Weight	Arm	Moment	Arm	Moment
	(Kg)	(mm)	(mm*Kg)	(mm)	(mm*Kg)
Cargo Basket Installation	26,5	2898	76 843	853	22 630
Cargo	90,9 (MAX)	2898	263 467	978	88 900

Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

CAUTION:

It is possible to exceed lateral CG limits in some configurations. For example, with one pilot, no passengers, fuel tanks half empty, and the AERO Design Ltd. cargo basket loaded with 200 pounds of cargo, the Lateral CG of the rotorcraft could be out of limits.

Aero Design Ltd.



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BELL 206L SERIES

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT for the INSTALLATION of EXTERNAL ATTACHMENT PROVISIONS

TCCA Supplemental Type Certificate No. <u>SH00-48</u>
FAA Supplemental Type Certificate No. <u>SR02253NY</u>
EASA Supplemental Type Certificate No. ____

Sections I, II, III and IV of this document comprise the Transport Canada Approved sections of this Flight Manual Supplement. Compliance with Section I, Limitations, is mandatory.

Section V and any subsequent sections if present are Unapproved and are provided for information only.

The information and data contained in this Flight Manual Supplement supersede or supplement that contained in the basic Approved Flight Manual for the Bell 206L Series when fitted with External Attachment Provisions. For limitations, procedures and performance not listed in this Flight Manual Supplement, refer to the Approved Flight Manual and other approved Flight Manual Supplements.

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Revision 1 22 January 2017

TRANSPORT CANADA APPROVED

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I LIMITATIONS

1. Attachment of any equipment to the External Attachment Provisions requires Transport Canada Approval.

II NORMAL PROCEDURES

1. No change from basic Approved Flight Manual.

III EMERGENCY PROCEDURES

1. No change from basic Approved Flight Manual.

IV PERFORMANCE

1. No change from basic Approved Flight Manual.

Aero Design Ltd.



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FMS606.01

BELL 407

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT for the INSTALLATION of the AERO DESIGN CARGO BASKET

TCCA Supplemental Type Certificate No. <u>SH00-48</u> FAA Supplemental Type Certificate No. <u>SR02253NY</u> EASA Supplemental Type Certificate No.

Sections I, II, III and IV of this document comprise the Transport Canada Approved sections of this Flight Manual Supplement. Compliance with Section I, Limitations, is mandatory.

Section V and any subsequent sections if present are Unapproved and are provided for information only.

The information and data contained in this Flight Manual Supplement supersede or supplement that contained in the basic Approved Flight Manual for the Bell 407 when fitted with the Cargo Basket Installation. For limitations, procedures and performance not listed in this Flight Manual Supplement, refer to the Approved Flight Manual and other approved Flight Manual Supplements.

CANADA
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OCT 0 2 2017

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Record of Revisions

Revision	Issue Date	Pages Revised	Date Inserted	Ву
1	25 June 2002	1-4	(incorporated)	
2	28 Sept 2007	2, 6	(incorporated)	
3	22 Jan 2017	1, 2		
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I LIMITATIONS

- The maximum load in the AERO Design Ltd. Cargo Basket is 200 Lb. (90.9 kg).
- Flight operations limited to VFR conditions with AERO Design Ltd. Cargo Basket installed.
- 3. Maximum lateral or rearward speed limited to 25 KIAS.
- Maximum winds from aft quadrants limited to 25 KIAS for takeoff, landing or hover flight.
- 5. V_{NE} is 140 KIAS except when the V_{NE} of the basic rotorcraft is more restrictive, in which case the lower V_{NE} applies.
- 6. High Basket configuration No occupants in the passenger cabin unless helicopter is equipped with approved push out emergency windows or sliding door on the basket side of the helicopter.

II NORMAL PROCEDURES

- 1. Pre-flight inspections:
 - Ensure that all cargo stored in the cargo basket does not extend outside the basket, is properly tied down and secured for flight.
 - b) Ensure that the lid of cargo basket is closed and secured.

CAUTION

It is possible to exceed the lateral centre of gravity limits of the rotorcraft under some loading conditions. Pilots must ensure that lateral C of G is within limits when loading the basket.

Aero Design Ltd.

FMS606.01

III EMERGENCY PROCEDURES

No change from basic Approved Flight Manual.

CAUTION:

The rotorcraft glide angle is steeper than that of the basic helicopter when the AERO Design Ltd. Cargo Basket is installed.

IV PERFORMANCE

Climb performance may be reduced by up to 200 fpm.

Cruise speeds are reduced by approximately 10 kts. (11 mph).

V WEIGHT AND BALANCE

1. The following weight and balance are for the low mounted cargo basket configuration, installed in accordance with drawing 60601.

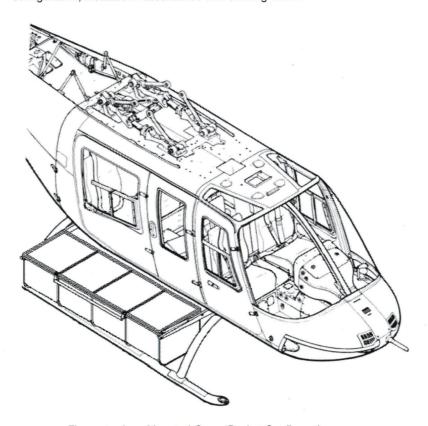


Figure 1 – Low Mounted Cargo Basket Configuration

Low Mounted Cargo Basket Configuration

English Units

a a		Longitudinal		Lateral	
Item	Weight	Arm	Moment	Arm	Moment
	(Lb)	(in)	(in*Lb)	(in)	(in*Lb)
Cargo Basket Installation	58.6	114.1	6684	33.6	1971
Cargo	200 (MAX)	114.1	22820	38.5	7700

Metric Units

		Longitudinal		Lateral	
Item	Weight	Arm	Moment	Arm	Moment
	(Kg)	(mm)	(mm*Kg)	(mm)	(mm*Kg)
Cargo Basket Installation	26,5	2898	76 843	853	22 630
Cargo	90.9 (MAX)	2898	263 467	978	88 900

Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

CAUTION:

It is possible to exceed lateral CG limits in some configurations. For example, with one pilot, no passengers, fuel tanks half empty, and the AERO Design Ltd. cargo basket loaded with 200 pounds of cargo, the Lateral CG of the rotorcraft could be out of limits.

2. The following weight and balance are for the high mounted cargo basket configuration, installed in accordance with drawing 60603.

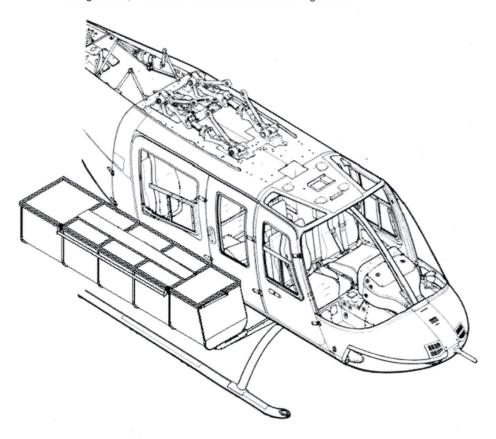


Figure 2 - High Mounted Cargo Basket Installation

High Mounted Cargo Basket Configuration

English Units

		Longitudinal		Lateral	
Item	Weight	Arm	Moment	Arm	Moment
	(Lb)	(in)	(in*Lb)	(in)	(in*Lb)
Cargo Basket Installation	86.5	121.0	10469	37.7	3258
Cargo	200 (MAX)	124.8	24960	46.8	9350

Metric Units

		Longitudinal		Lateral	
Item	Weight	Arm	Moment	Arm	Moment
	(Kg)	(mm)	(mm*Kg)	(mm)	(mm*Kg)
Cargo Basket Installation	39.1	3073	120 154	958	37 458
Cargo	90.9 (MAX)	3170	288 153	1189	108 080

Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

CAUTION:

It is possible to exceed lateral CG limits in some configurations. For example, with one pilot, no passengers, fuel tanks half empty, and the AERO Design Ltd. cargo basket loaded with 200 pounds of cargo, the Lateral CG of the rotorcraft could be out of limits.



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BELL 407

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT for the INSTALLATION of EXTERNAL ATTACHMENT PROVISIONS

TCCA Supplemental Type Certificate No. <u>SH00-48</u> FAA Supplemental Type Certificate No. <u>SR02253NY</u> EASA Supplemental Type Certificate No.

Sections I, II, III and IV of this document comprise the Transport Canada Approved sections of this Flight Manual Supplement. Compliance with Section I, Limitations, is mandatory.

Section V and any subsequent sections if present are Unapproved and are provided for information only.

The information and data contained in this Flight Manual Supplement supersede or supplement that contained in the basic Approved Flight Manual for the Bell 407 when fitted with External Attachment Provisions. For limitations, procedures and performance not listed in this Flight Manual Supplement, refer to the Approved Flight Manual and other approved Flight Manual Supplements.

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TRANSPORT CANADA APPROVED

I LIMITATIONS

1. Attachment of any equipment to the External Attachment Provisions requires Transport Canada Approval.

II NORMAL PROCEDURES

1. No change from basic Approved Flight Manual.

III EMERGENCY PROCEDURES

1. No change from basic Approved Flight Manual.

IV PERFORMANCE

1. No change from basic Approved Flight Manual.



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BELL 407

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT for the

INSTALLATION of the AERO DESIGN QUICK RELEASE CARGO BASKET AND/OR QUICK RELEASE STEP

TCCA Supplemental Type Certificate No. <u>SH00-48</u> FAA Supplemental Type Certificate No. <u>SR02253NY</u> EASA Supplemental Type Certificate No.

Sections I, II, III and IV of this document comprise the Transport Canada Approved sections of this Flight Manual Supplement. Compliance with Section I, Limitations, is mandatory.

Section V and any subsequent sections if present are Unapproved and are provided for information only.

The information and data contained in this Flight Manual Supplement supersede or supplement that contained in the basic Approved Flight Manual for the Bell 407 when fitted with the Quick Release Cargo Basket or Quick Release Step Installation. For limitations, procedures and performance not listed in this Flight Manual Supplement, refer to the Approved Flight Manual and other approved Flight Manual Supplements.

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Record of Revisions

Revision	Issue Date	Pages Revised	Date Inserted	Ву
0	05 May, 2006	None	(incorporated)	
1	09 Nov, 2006	2, 6	(incorporated)	141
2 /	17 July, 2008	All	(incorporated)	
3	26 Oct, 2011	All	(incorporated)	,
4	22 Jan 2017	1, 2		

I LIMITATIONS

- The maximum load in the AERO Design Ltd. Quick Release Cargo Basket is 300 lb. (136 kg).
- Flight operations limited to VFR conditions with AERO Design Ltd. Cargo Basket installed.
- 3. Maximum lateral or rearward speed limited to 25 KIAS.
- Maximum winds from aft quadrants limited to 25 KIAS for takeoff, landing or hover flight.
- 5. V_{NE} is 140 KIAS except when the V_{NE} of the basic rotorcraft is more restrictive, in which case the lower V_{NE} applies.
- 6. Quick Release Step may be installed when the basket is removed.

II NORMAL PROCEDURES

- 1. Pre-flight inspections:
 - Ensure that all cargo stored in the cargo basket is properly tied down and secured for flight.
 - b) Ensure that the lid of cargo basket is closed and secured.
 - Ensure the basket is locked in postion on the beams. Pull
 up on the forward and aft end of the basket to check.
 - Ensure the step is locked in position on the beams. Pull up on the forward and aft end of the step to check.

CAUTION

It is possible to exceed the lateral centre of gravity limits of the rotorcraft under some loading conditions. Pilots must ensure that lateral C of G is within limits when loading the basket.

III EMERGENCY PROCEDURES

No change from basic Approved Flight Manual.

CAUTION:

The rotorcraft glide angle is steeper than that of the basic helicopter when the AERO Design Ltd. Cargo Basket is installed.

Aero Design Ltd.

FMS701.90

IV PERFORMANCE

With the cargo basket installed:

Climb performance is reduced by up to 200 fpm.

Cruise performance and range are reduced by 10 percent.

V WEIGHT AND BALANCE

1. The following weight and balance is for the low mounted quick release cargo basket configuration, installed in accordance with drawing 70101.

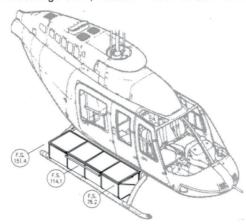


Figure 1 – Quick Release Cargo Basket (70101 Configuration)

Low Mounted Quick Release Cargo Basket Configuration

Item	Weight	Lo	ngitudinal	Lateral		
110111	Worgin	Arm	Moment	Arm	Moment	
Basket	45.0 lb	114.1 in	5134 in*lb	38.5 in	1733 in*lb	
Only ¹	20.4 kg	2898 mm	59 122 mm*kg	978 mm	19 949 mm*kg	
Cargo ²	300 lb	114.1 in	34 230 in*lb	38.5 in	11 550 in*lb	
(MAX)	136 kg	2898 mm	393 413 mm*kg	978 mm	132 747 mm*kg	

¹ Weight and balance is for Cargo Basket only. Mounting beams and attachment provisions are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

CAUTION:

It is possible to exceed lateral CG limits in some configurations.

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² Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

2. The following weight and balance is for the quick release step configuration, installed in accordance with drawing 80002.

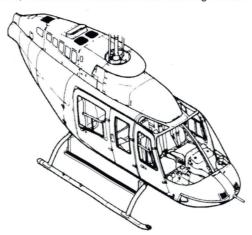


Figure 2 – Quick Release Step Configuration

Quick Release Step Configuration

Item Weight	Longitudinal		Lateral		
	Arm	Moment	Arm	Moment	
Step	8.2 lb	114.1 in	935.6 in*lb	29.3 in	239.9 in*lb
Only ¹	3.7 kg	2898 mm	10 723 mm*kg	744 mm	2 754 mm*kg

Quick Release Step Configuration (Stowed Position)

Item	Item Weight		Longitudinal		Lateral
110111	Worging	Arm	Moment	Arm	Moment
Step	8.2 lb	114.1 in	935.6 in*lb	23.7 in	194.3 in*lb
Only ¹	3.7 kg	2898 mm	10 723 mm*kg	602 mm	2 227 mm*kg

¹ Weight and balance is for Step only. Mounting beams and attachment provisions are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

 The following weight and balance is for the large low mounted quick release cargo basket configuration, installed in accordance with drawing 94501.

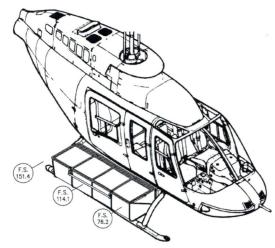


Figure 3 – Quick Release Cargo Basket (94501 Configuration)

Large Low Mounted Quick Release Cargo Basket Configuration

Item Weight		Lo	ngitudinal	Lateral	
110111	Worgin	Arm	Moment	Arm	Moment
Basket	47.8 lb	114.1 in	5 454 in*lb	39.6 in	1 893 in*lb
Only ¹	21.6 kg	2898 mm	62 684 mm*kg	1006 mm	21 755 mm*kg
Cargo ²	300 lb	114.1 in	34 230 in*lb	39.6 in	11 880 in*lb
(MAX)	136 kg	2898 mm	393 413 mm*kg	1006 mm	136 539 mm*kg

¹ Weight and balance is for Cargo Basket only. Mounting beams and attachment provisions are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

CAUTION:

It is possible to exceed lateral CG limits in some configurations.

² Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

 The following weight and balance is for the large, long, low mounted quick release cargo basket configuration, installed in accordance with drawing 94601.

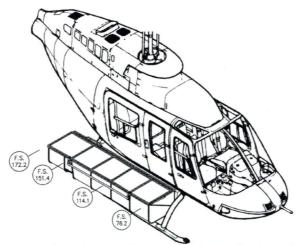


Figure 4 - Quick Release Cargo Basket (94601 Configuration)

Large Long Low Mounted Quick Release Cargo Basket Configuration

Item	Item Weight		ngitudinal	Lateral	
Ittorri	Weight	Arm	Moment	Arm	Moment
Basket	63.0 lb	125.0 in	7 875 in*lb	39.6 in	2 495 in*lb
Only ¹	28.5 kg	3175 mm	90 509 mm*kg	1006 mm	28 673 mm*kg
Cargo ²	300 lb	114.1 in	34 230 in*lb	39.6 in	11 880 in*lb
(MAX)	136 kg	2898 mm	393 413 mm*kg	1006 mm	136 539 mm*kg

¹ Weight and balance is for Cargo Basket only. Mounting beams and attachment provisions are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

CAUTION:

It is possible to exceed lateral CG limits in some configurations.

² Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

VI INSTALLATION / REMOVAL INSTRUCTIONS

The Quick Release Mounting Provisions are installed in accordance with drawing 70102. The Quick Release Basket is installed in accordance with drawing 70101, 94501, or 94601 as applicable. The Quick Release Step is installed in accordance with drawing 80002. Removal of the basket or step leaving the beams in place is an approved configuration for flight. Logbook entry indicating installation or removal of basket or step and which weight and balance amendment is in effect is required.

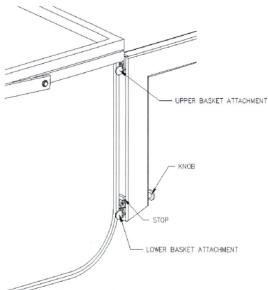


Figure 3 - Basket Attachment

- 1. Basket Installation Refer to Figure 3.
 - 1. Set basket upper attachment into slot on forward and aft beams.
 - At forward end of basket, lift until lower attachment fitting hits stop over keyway. Push fitting into keyway and slide basket down until locked. Repeat for aft end.
- 2. Basket Removal Refer to Figure 3.
 - Pull knob at bottom end of forward beam and lift basket until lower attachment fitting is free of keyway. Keep upper basket attachment in slot in beam. Repeat for aft end.

2. Lift basket until upper attachments are out of slots on beams and remove basket from helicopter.

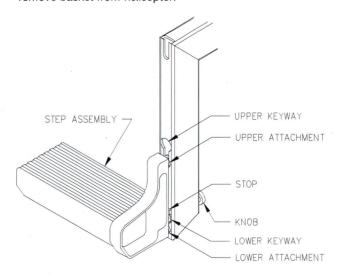


Figure 4 - Step Attachment

- 3. Step Installation Refer to Figure 4.
 - 1. Set upper attachment into upper keyway on forward and aft beams.
 - Lift step until lower attachment hits stop over keyway. Push fitting into keyway and slid down until locked.
- 4. Step Removal Refer to Figure 4.
 - Pull knob at bottom end of forward beam and lift step until the lower attachment fitting is free of keyway. Keep upper attachment in keyway in beam. Repeat for aft end.
 - 2. Lift step until upper attachments are out of keyways in beams and remove from helicopter.

Aero Design Ltd.



9888A Malaspina Road Powell River, BC, V8A 0G3 Phone: 604-483-2376 Fax: 604-483-2372 www.aerodesign.ca

BELL 206L SERIES

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT for the

INSTALLATION of the AERO DESIGN QUICK RELEASE CARGO BASKET AND/OR QUICK RELEASE STEP

TCCA Supplemental Type Certificate No. <u>SH00-48</u> FAA Supplemental Type Certificate No. <u>SR02253NY</u> EASA Supplemental Type Certificate No.

Sections I, II, III and IV of this document comprise the Transport Canada Approved sections of this Flight Manual Supplement. Compliance with Section I, Limitations, is mandatory.

Section V and any subsequent sections if present are Unapproved and are provided for information only.

The information and data contained in this Flight Manual Supplement supersede or supplement that contained in the basic Approved Flight Manual for the Bell 206L Series when fitted with the Quick Release Cargo Basket or Quick Release Step Installation. For limitations, procedures and performance not listed in this Flight Manual Supplement, refer to the Approved Flight Manual and other approved Flight Manual Supplements.

CANADA

DEPARTMENT OF TRANSPORT
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Revision 4 22 January 2017 Page 1 TRANSPORT CANADA APPROVED

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Record of Revisions

Revision	Issue Date	Pages Revised	Date Inserted	Ву
0	05 May, 2006	None		
1	09 Nov, 2006	2, 6		
2	17 July, 2008	All		
3	26 Oct, 2011	All		
4	22 Jan 2017	1, 2		
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I LIMITATIONS

- The maximum load in the AERO Design Ltd. Quick Release Cargo Basket is 300 lb. (136 kg).
- Flight operations limited to VFR conditions with AERO Design Ltd. Cargo Basket installed.
- 3. Quick Release Step may be installed when the basket is removed.

II NORMAL PROCEDURES

- 1. Pre-flight inspections:
 - Ensure that all cargo stored in the cargo basket is properly tied down and secured for flight.
 - b) Ensure that the lid of cargo basket is closed and secured.
 - Ensure the basket is locked in postion on the beams. Pull
 up on the forward and aft end of the basket to check.
 - Ensure the step is locked in position on the beams. Pull up on the forward and aft end of the step to check.

CAUTION

It is possible to exceed the lateral centre of gravity limits of the rotorcraft under some loading conditions. Pilots must ensure that lateral C of G is within limits when loading the basket.

III EMERGENCY PROCEDURES

No change from basic Approved Flight Manual.

CAUTION:

The rotorcraft glide angle is steeper than that of the basic helicopter when the AERO Design Ltd. Cargo Basket is installed.

IV PERFORMANCE

With the cargo basket installed:

Climb performance is reduced by up to 350 fpm.

Cruise performance and range are reduced by 10 percent.

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V WEIGHT AND BALANCE

1. The following weight and balance is for the low mounted quick release cargo basket configuration, installed in accordance with drawing 70201.

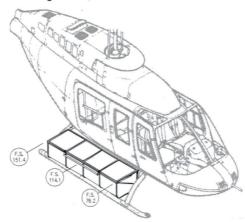


Figure 1 – Quick Release Cargo Basket (Configuration 70201)

Low Mounted Quick Release Cargo Basket Configuration

16	\\/ a ! = = 4	Loi	ngitudinal	Lateral		
Item	Weight	Arm	Moment	Arm	Moment	
Basket	45.0 lb	114.1 in	5134 in*lb	38.5 in	1733 in*lb	
Only ¹	20.4 kg	2898 mm	59 122 mm*kg	978 mm	19 949 mm*kg	
Cargo ²	300 lb	114.1 in	34 230 in*lb	38.5 in	11 550 in*lb	
(MAX)	136 kg	2898 mm	393 413 mm*kg	978 mm	132 747 mm*kg	

¹ Weight and balance is for Cargo Basket only. Mounting beams and attachment provisions are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

CAUTION:

It is possible to exceed lateral CG limits in some configurations.

² Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

2. The following weight and balance is for the quick release step configuration, installed in accordance with drawing 80002.

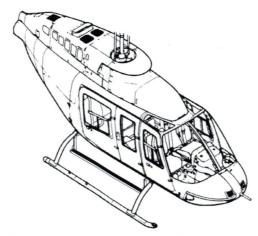


Figure 2 – Quick Release Step (Configuration 80002)

Quick Release Step Configuration

Item	Weight	Loi	ngitudinal	Lateral		
Itom	, voignt	Arm	Moment	Arm	Moment	
Step	8.2 lb	114.1 in	935.6 in*lb	29.3 in	239.9 in*lb	
Only ¹	3.7 kg	2898 mm	10 723 mm*kg	744 mm	2 754 mm*kg	

Quick Release Step Configuration (Stowed Position)

Item	Weight	Loi	ngitudinal	Lateral		
T.OIII		Arm	Moment	Arm	Moment	
Step	8.2 lb	114.1 in	935.6 in*lb	23.7 in	194.3 in*lb	
Only ¹	3.7 kg	2898 mm	10 723 mm*kg	602 mm	2 227 mm*kg	

¹ Weight and balance is for Step only. Mounting beams and attachment provisions are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

 The following weight and balance is for the large low mounted quick release cargo basket configuration, installed in accordance with drawing 94502.

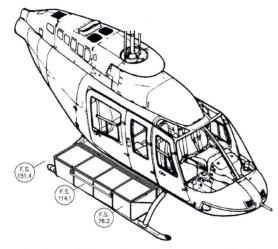


Figure 3 – Quick Release Cargo Basket (94502 Configuration)

Large Low Mounted Quick Release Cargo Basket Configuration

Item	Weight	Lo	ngitudinal	Lateral		
110111	Worgin	Arm	Moment	Arm	Moment	
Basket	47.8 lb	114.1 in	5 454 in*lb	39.6 in	1 893 in*lb	
Only	21.6 kg	2898 mm	62 684 mm*kg	1006 mm	21 755 mm*kg	
Cargo ²	300 lb	114.1 in	34 230 in*lb	39.6 in	11 880 in*lb	
(MAX)	136 kg	2898 mm	393 413 mm*kg	1006 mm	136 539 mm*kg	

¹ Weight and balance is for Cargo Basket only. Mounting beams and attachment provisions are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

CAUTION:

It is possible to exceed lateral CG limits in some configurations.

² Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

 The following weight and balance is for the large, long, low mounted quick release cargo basket configuration, installed in accordance with drawing 94602.

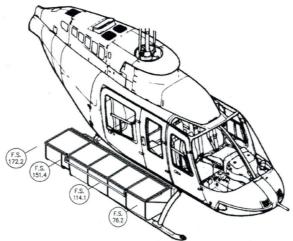


Figure 4 – Quick Release Cargo Basket (94602 Configuration)

Large Long Low Mounted Quick Release Cargo Basket Configuration

Item	Weight	Lo	ngitudinal	Lateral		
110111	Worgin	Arm	Moment	Arm	Moment	
Basket	63.0 lb	125.0 in	7 875 in*lb	39.6 in	2 495 in*lb	
Only ¹	28.5 kg	3175 mm	90 509 mm*kg	1006 mm	28 673 mm*kg	
Cargo ²	300 lb	114.1 in	34 230 in*lb	39.6 in	11 880 in*lb	
(MAX)	136 kg	2898 mm	393 413 mm*kg	1006 mm	136 539 mm*kg	

¹ Weight and balance is for Cargo Basket only. Mounting beams and attachment provisions are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

CAUTION:

It is possible to exceed lateral CG limits in some configurations.

² Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

VI INSTALLATION / REMOVAL INSTRUCTIONS

The Quick Release Mounting Provisions are installed in accordance with drawing 70202. The Quick Release Basket is installed in accordance with drawing 70201, 94502, or 94602 as applicable. The Quick Release Step is installed in accordance with drawing 80002. Removal of the basket or step leaving the beams in place is an approved configuration for flight. Logbook entry indicating installation or removal of basket or step and which weight and balance amendment is in effect is required.

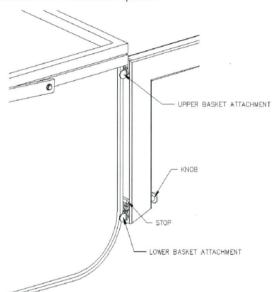


Figure 3 - Basket Attachment

- 1. Installation Refer to Figure 3.
 - 1. Set basket upper attachment into slot on forward and aft beams.
 - At forward end of basket, lift until lower attachment fitting hits stop over keyway. Push fitting into keyway and slide basket down until locked. Repeat for aft end.
- 2. Removal Refer to Figure 3.
 - Pull knob at bottom end of forward beam and lift basket until lower attachment fitting is free of keyway. Keep upper basket attachment in slot in beam. Repeat for aft end.

Lift basket until upper attachments are out of slots on beams and remove basket from helicopter.

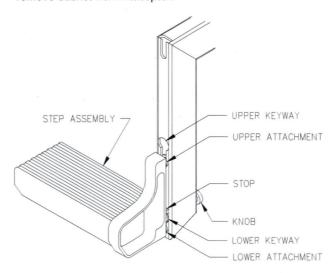


Figure 4 - Step Attachment

- 3. Step Installation Refer to Figure 4.
 - 1. Set upper attachment into upper keyway on forward and aft beams.
 - Lift step until lower attachment hits stop over keyway. Push fitting into keyway and slid down until locked.
- 4. Step Removal Refer to Figure 4.
 - Pull knob at bottom end of forward beam and lift step until the lower attachment fitting is free of keyway. Keep upper attachment in keyway in beam. Repeat for aft end.
 - 2. Lift step until upper attachments are out of keyways in beams and remove from helicopter.

Aero Design Ltd.



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BELL 407

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT for the

INSTALLATION of the AERO DESIGN HIGH MOUNTED QUICK RELEASE CARGO BASKET

TCCA Supplemental Type Certificate No. <u>SH00-48</u> FAA Supplemental Type Certificate No. <u>SR02253NY</u> EASA Supplemental Type Certificate No.

Sections I, II, III and IV of this document comprise the Transport Canada Approved sections of this Flight Manual Supplement. Compliance with Section I, Limitations, is mandatory.

Section V and any subsequent sections if present are Unapproved and are provided for information only.

The information and data contained in this Flight Manual Supplement supersede or supplement that contained in the basic Approved Flight Manual for the Bell 407 when fitted with the Cargo Basket Installation. For limitations, procedures and performance not listed in this Flight Manual Supplement, refer to the Approved Flight Manual and other approved Flight Manual Supplements.

CANADA
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Record of Revisions

Revision	Issue Date	Pages Revised	Date Inserted	Ву
0	30 Oct 2007	Original		
1	25 June 2017	1, 2, 6, 7		
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I LIMITATIONS

- 1. The maximum load in the AERO Design Ltd. Cargo Basket is 200 Lb. (90.9 kg).
- Flight operations limited to VFR conditions with AERO Design Ltd. Cargo Basket installed.
- 3. Maximum lateral or rearward speed limited to 25 KIAS.
- Maximum winds from aft quadrants limited to 25 KIAS for takeoff, landing or hover flight.
- 5. V_{NE} is 140 KIAS except when the V_{NE} of the basic rotorcraft is more restrictive, in which case the lower V_{NE} applies.
- No occupants in the passenger cabin unless helicopter is equipped with approved push out emergency windows or sliding door on the basket side of the helicopter.

II NORMAL PROCEDURES

- 1. Pre-flight inspections:
 - Ensure basket is located in correct lateral keyway for the configuration of the helicopter (see section VI):

If a right hand sliding door is installed the basket <u>MUST</u> be positioned in the most outboard lateral position to provide clearance for the door to open.

If a pop-out window is installed on the helicopter, the basket may be installed in either position, but the preferred position is inboard for a more favorable lateral C of G.

- Ensure that all cargo stored in the cargo basket does not extend outside the basket, is properly tied down and secured for flight.
- c) Ensure that the lid of cargo basket is closed and secured.

CAUTION

It is possible to exceed the lateral centre of gravity limits of the rotorcraft under some loading conditions. Pilots must ensure that lateral C of G is within limits when loading the basket.

III EMERGENCY PROCEDURES

No change from basic Approved Flight Manual.

CAUTION:

The rotorcraft glide angle is steeper than that of the basic helicopter when the AERO Design Ltd. Cargo Basket is installed.

IV PERFORMANCE

Climb performance may be reduced by up to 200 fpm.

Cruise speeds are reduced by approximately 10 kts. (11 mph).

V WEIGHT AND BALANCE

1. The following weight and balance is for the high mounted quick release cargo basket configuration, installed in accordance with drawing 76601.

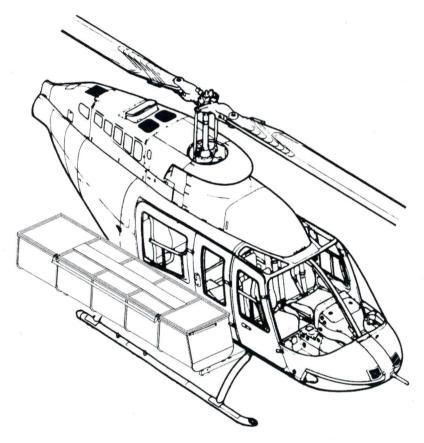


Figure 1 - High Mounted Quick Release Cargo Basket Configuration

High Mounted Quick Release Cargo Basket Configuration – Basket S/N 76601-01 thru 76601-27

Refer to section VI for definition of inboard and outboard installation.

English Units

		Longi	Longitudinal		eral
3	Weight	Arm	Moment	Arm	Moment
Item	(lbs)	(in)	(in-lbs)	(in)	(in-lbs)
Cargo Basket (Outboard)	65.8	124.4	8185.5	46.8	3079.4
Cargo (Max, Outboard)	200	124.4	24880.0	46.8	9360.0
Cargo Basket (Inboard)	65.8	124.4	8185.5	42.3	2783.3
Cargo (Max, Inboard)	200	124.4	24880.0	42.3	8460.0

Metric Units

		Longitudinal		Lateral	
3.	Weight	Arm	Moment	Arm	Moment
Item	(kg)	(mm)	(mm-kg)	(mm)	(mm-kg)
Cargo Basket (Outboard)	29.8	3159.8	94291.3	1188.7	35472.9
Cargo (Max, Outboard)	90.9	3160	287244	1189	108080
Cargo Basket (Inboard)	29.8	3159.8	94291.3	1074.4	32062.1
Cargo (Max, Inboard)	90.9	3160	287244	1074	97627

Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

CAUTION:

It is possible to exceed lateral CG limits in some configurations. For example, with one pilot, no passengers, fuel tanks half empty, and the AERO Design Ltd. cargo basket loaded with 200 pounds of cargo, the Lateral CG of the rotorcraft could be out of limits.

High Mounted Quick Release Cargo Basket Configuration – Basket S/N 76601-28

Refer to section VI for definition of inboard and outboard installation.

English Units

		Longitudinal		Lateral	
	Weight	Arm	Moment	Arm	Moment
Item	(lbs)	(in)	(in-lbs)	(in)	(in-lbs)
Cargo Basket (Outboard) Cargo (Max, Outboard)	69.0 200	124.4 124.4	8583.6 24880.0	46.8 46.8	3229.2 9360.0
Cargo Basket (Inboard)	69.0	124.4	8583.6	42.3	2918.7
Cargo (Max, Inboard)	200	124.4	24880.0	42.3	8460.0

Metric Units

č ,		Long	itudinal	Lat	teral
10	Weight	Arm	Moment	Arm	Moment
Item	(kg)	(mm)	(mm-kg)	(mm)	(mm-kg)
Cargo Basket (Outboard) Cargo (Max, Outboard)	31.3 90.9	3159.8 3160	98876.8 287244	1188.7 1189	37198.0 108080
Cargo Basket (Inboard) Cargo (Max, Inboard)	31.3 90.9	3159.8 3160	98876.8 287244	1074.4 1074	33621.3 97627

Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

CAUTION:

It is possible to exceed lateral CG limits in some configurations. For example, with one pilot, no passengers, fuel tanks half empty, and the AERO Design Ltd. cargo basket loaded with 200 pounds of cargo, the Lateral CG of the rotorcraft could be out of limits.

VI INSTALLATION / REMOVAL INSTRUCTIONS

Provisions on the beams allow the basket to be mounted in either an inboard lateral position or an outboard lateral position.

If a right hand sliding door is installed the basket <u>MUST</u> be positioned in the most outboard lateral position to provide clearance for the door to open.

If a pop-out window is installed on the helicopter, the basket may be installed in either position, but the inboard lateral position is recommended to give a more favorable lateral C of G.

A stop is to be installed to prevent use of an incorrect keyway in accordance with drawing 76601.

Installation

Refer to Figure 2 for outboard installation. Refer to Figure 3 for inboard installation.

- Set basket inboard attachment into inboard keyway on forward and aft beams. Slide basket to end of keyway.
- At forward end of basket, slide basket until outboard attachment fitting hits block at edge of keyway. Push fitting into keyway and slide until locked.
- 3. Repeat step 2 for aft end.

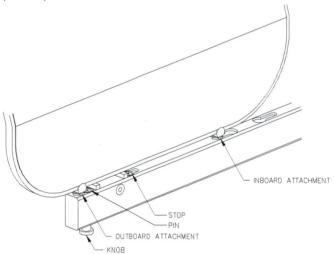


Figure 2 - Outboard Lateral Basket Attachment

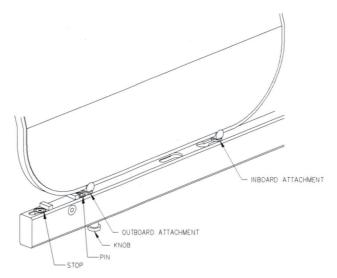


Figure 3 - Inboard Lateral Basket Attachment

Removal

Refer to Figure 2 and 3.

- Pull knob at outboard end of forward beam and slide basket until outboard attachment fitting is free of keyway. Keep inboard attachment in keyway on beam.
- Pull knob at outboard end of aft beam and slide basket until outboard attachment fitting is free of keyway. Keep inboard attachment in keyway on beam.
- 3. Slide basket until inboard attachments are out of keyway on beams and remove basket from helicopter.



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BELL 206L SERIES

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT for the INSTALLATION of the AERO DESIGN HIGH MOUNTED QUICK RELEASE CARGO BASKET

TCCA Supplemental Type Certificate No. <u>SH00-48</u> FAA Supplemental Type Certificate No. <u>SR02253NY</u> EASA Supplemental Type Certificate No.

Sections I, II, III and IV of this document comprise the Transport Canada Approved sections of this Flight Manual Supplement. Compliance with Section I, Limitations, is mandatory.

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The information and data contained in this Flight Manual Supplement supersede or supplement that contained in the basic Approved Flight Manual for the Bell 206L Series helicopter when fitted with the Cargo Basket Installation. For limitations, procedures and performance not listed in this Flight Manual Supplement, refer to the Approved Flight Manual and other approved Flight Manual Supplements.



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Record of Revisions

Revision	Issue Date	Pages Revised	Date Inserted	Ву
0	30 Oct 2007	Original		
1	25 June 2017	1, 2, 6, 7		
s				

I LIMITATIONS

- 1. The maximum load in the AERO Design Ltd. Cargo Basket is 200 Lb. (90.9 kg).
- Flight operations limited to VFR conditions with AERO Design Ltd. Cargo Basket installed.
- 3. Maximum lateral or rearward speed limited to 25 KIAS.
- Maximum winds from aft quadrants limited to 25 KIAS for takeoff, landing or hover flight.
- 5. V_{NE} limitations are unchanged from the basic rotorcraft flight manual.
- No occupants in the passenger cabin unless helicopter is equipped with approved push out emergency windows or sliding door on the basket side of the helicopter.

II NORMAL PROCEDURES

- 1. Pre-flight inspections:
 - a) Ensure basket is located in correct lateral keyway for the configuration of the helicopter (see section VI):

If a right hand sliding door is installed the basket <u>MUST</u> be positioned in the most outboard lateral position to provide clearance for the door to open.

If a pop-out window is installed on the helicopter, the basket may be installed in either position, but the preferred position is inboard for a more favorable lateral C of G.

- Ensure that all cargo stored in the cargo basket does not extend outside the basket, is properly tied down and secured for flight.
- c) Ensure that the lid of cargo basket is closed and secured.

CAUTION

It is possible to exceed the lateral centre of gravity limits of the rotorcraft under some loading conditions. Pilots must ensure that lateral C of G is within limits when loading the basket.

III EMERGENCY PROCEDURES

No change from basic Approved Flight Manual.

CAUTION:

The rotorcraft glide angle is steeper than that of the basic helicopter when the AERO Design Ltd. Cargo Basket is installed.

IV PERFORMANCE

Climb performance may be reduced by up to 200 fpm.

Cruise speeds are reduced by approximately 10 kts. (11 mph).

V WEIGHT AND BALANCE

 The following weight and balance is for the high mounted quick release cargo basket configuration, installed in accordance with drawing 76601.

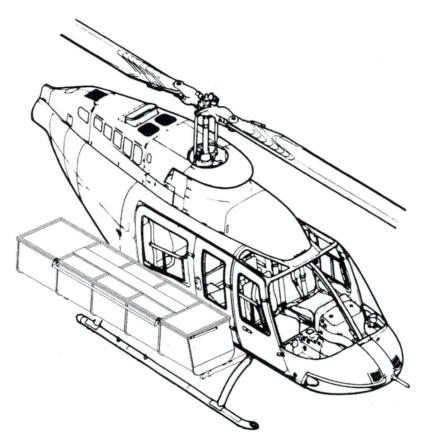


Figure 1 - High Mounted Quick Release Cargo Basket Configuration

High Mounted Quick Release Cargo Basket Configuration – Basket S/N 76601-01 thru 76601-27

Refer to section VI for definition of inboard and outboard installation.

English Units

		Longi	itudinal	Lat	eral
	Weight	Arm	Moment	Arm	Moment
Item	(lbs)	(in)	(in-lbs)	(in)	(in-lbs)
Cargo Basket (Outboard)	65.8	124.4	8185.5	46.8	3079.4
Cargo (Max, Outboard)	200	124.4	24880.0	46.8	9360.0
Cargo Basket (Inboard)	65.8	124.4	8185.5	42.3	2783.3
Cargo (Max, Inboard)	200	124.4	24880.0	42.3	8460.0

Metric Units

		Long	itudinal	Lat	teral
	Weight	Arm	Moment	Arm	Moment
Item	(kg)	(mm)	(mm-kg)	(mm)	(mm-kg)
Cargo Basket (Outboard) Cargo (Max, Outboard)	29.8 90.9	3159.8 3160	94291.3 287244	1188.7 1189	35472.9 108080
Cargo Basket (Inboard) Cargo (Max, Inboard)	29.8 90.9	3159.8 3160	94291.3 287244	1074.4 1074	32062.1 97627

Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

CAUTION:

It is possible to exceed lateral CG limits in some configurations. For example, with one pilot, no passengers, fuel tanks half empty, and the AERO Design Ltd. cargo basket loaded with 200 pounds of cargo, the Lateral CG of the rotorcraft could be out of limits.

High Mounted Quick Release Cargo Basket Configuration – Basket S/N 76601-28 and sub.

Refer to section VI for definition of inboard and outboard installation.

English Units

		Long	itudinal	Lat	eral
	Weight	Arm	Moment	Arm	Moment
Item	(lbs)	(in)	(in-lbs)	(in)	(in-lbs)
Cargo Basket (Outboard) Cargo (Max, Outboard)	69.0 200	124.4 124.4	8583.6 24880.0	46.8 46.8	3229.2 9360.0
Cargo Basket (Inboard)	69.0	124.4	8583.6	42.3	2918.7
Cargo (Max, Inboard)	200	124.4	24880.0	42.3	8460.0

Metric Units

		Longitudinal		Lateral	
	Weight	Arm	Moment	Arm	Moment
Item	(kg)	(mm)	(mm-kg)	(mm)	(mm-kg)
Cargo Basket					
(Outboard)	31.3	3159.8	98876.8	1188.7	37198.0
Cargo (Max, Outboard)	90.9	3160	287244	1189	108080
Cargo Basket (Inboard)	31.3	3159.8	98876.8	1074.4	33621.3
Cargo (Max, Inboard)	90.9	3160	287244	1074	97627

Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

CAUTION:

It is possible to exceed lateral CG limits in some configurations. For example, with one pilot, no passengers, fuel tanks half empty, and the AERO Design Ltd. cargo basket loaded with 200 pounds of cargo, the Lateral CG of the rotorcraft could be out of limits.

VI INSTALLATION / REMOVAL INSTRUCTIONS

Provisions on the beams allow the basket to be mounted in either an inboard lateral position or an outboard lateral position.

If a right hand sliding door is installed the basket <u>MUST</u> be positioned in the most outboard lateral position to provide clearance for the door to open.

If a pop-out window is installed on the helicopter, the basket may be installed in either position, but the inboard lateral position is recommended to give a more favorable lateral C of G.

A stop is to be installed to prevent use of an incorrect keyway in accordance with drawing 76601.

Installation

Refer to Figure 2 for outboard installation. Refer to Figure 3 for inboard installation.

- Set basket inboard attachment into inboard keyway on forward and aft beams. Slide basket to end of keyway.
- At forward end of basket, slide basket until outboard attachment fitting hits block at edge of keyway. Push fitting into keyway and slide until locked.
- 3. Repeat step 2 for aft end.

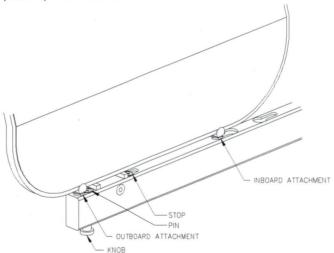


Figure 2 - Outboard Lateral Basket Attachment

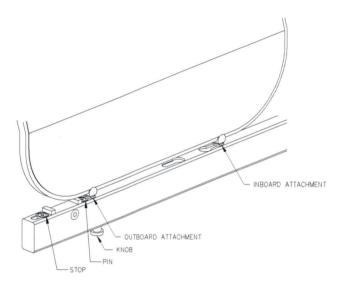


Figure 3 - Inboard Lateral Basket Attachment

Removal

Refer to Figure 2 and 3.

- Pull knob at outboard end of forward beam and slide basket until outboard attachment fitting is free of keyway. Keep inboard attachment in keyway on beam.
- Pull knob at outboard end of aft beam and slide basket until outboard attachment fitting is free of keyway. Keep inboard attachment in keyway on beam.
- Slide basket until inboard attachments are out of keyway on beams and remove basket from helicopter.

MSI 53 - Review of Supplemental Instructions for Continued Airworthiness

BLOCK 3

Note: The statement in block 5 does not constitute an approval of the Airworthiness Limitations Section. Airworthiness Limitations differ from other maintenance tasks, in that they are mandatory, as a direct condition of the approval of the type design. They are therefore referenced directly in the approval document itself. However, they must also be included in the Supplemental Instructions for Continued Airworthiness.

	be included in the Supplemental Instructions for Continued	d Airworthiness.	and a second sec				
	A527.4 AWL - Separate Section 1 The Instructions for Continued Airworthiness must contain a section titled Airworthiness Limitations that is segregated and clearly distinguishable from the rest of the document. This section must set forth each mandatory replacement time, structural inspection interval, and related structural inspection procedure approved under 527.571. If the Instructions for Continued Airworthiness consist of multiple documents, the section required by this paragraph must be included in the principal manual. This section must contain a legible statement in a prominent location that reads: "The Airworthiness Limitations section is approved by the Minister and specifies maintenance required by any applicable airworthiness or operating rule unless an alternative program has been approved by the Minister."	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 4	Supplemental ICA ref: Chapter 4				
	BLOCK 4 – Applicant Statement of Compliance						
	The Supplemental ICA referenced above comprises that supports this change in type design.	the complete listing of supplemental ICA necess	ary to show compliance with the regulatory standard				
	Applicants Signature:		Date: 25 June 2017				
A COLUMN TO A COLU	Applicants Name: Jeff Clarke, Vice President - Aero Design Ltd.						
	BLOCK 5 – Minister's Statement of Acceptability						
CONTRACTOR OF THE PERSON	The design change is adequately supported by existi	ing ICA and/or supplemental ICA, as identified at	pove and is acceptable to the Minister.				
	Reviewer's Name: Michael Chan Phone #	604-666-8458 Email: Michael cha	Mail Routing Symbol: TAHI				
-	Nan of Comments						

MSI 53 - Review of Supplemental Instructions for Continued Airworthiness

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (b) (3) Removal/replacement (3) Information describing the order and method of removing and replacing products and parts with any necessary precautions to be taken.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 25	Supplemental ICA ref: Section 25-1 thru 25-6
A527.3 (b) (4) General (4) Other general procedural instructions including procedures for system testing during ground running, symmetry checks, weighing and determining the center of gravity, lifting and shoring, and storage limitations.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 7 and 8	Supplemental ICA ref: Section 25-7
A527.3 (c) Access (c) Diagrams of structural access plates and information needed to gain access for inspections when access plates are not provided.	ICA ref: N/A	Supplemental ICA ref; N/A
A527.3 (d) Special inspections (d) Details for the application of special inspection techniques including radiographic and ultrasonic testing where such processes are specified.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (e) Protective treatment (e) Information needed to apply protective treatments to the structure after inspection.	ICA ref: Bell Standard Practices Manual BHT-ALL-SPM, Chapter 3	Supplemental ICA ref: Section 5-3
A527.3 (f) Fasteners, torque values, etc (f) All data relative to structural fasteners such as identification, discard recommendations, and torque values.	ICA ref: Bell Standard Practices Manual BHT-ALL-SPM, Chapter 2	Supplemental ICA ref: Section 25-8
A527.3 (g) Special tools (g) A list of special tools needed.	ICA ref: N/A	Supplemental ICA ref: N/A

MSI 53 - Review of Supplemental Instructions for Continued Airworthiness

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (a) (3) Control & Operation (3) Basic control and operation information describing how the rotorcraft components and systems are controlled and how they operate, including any special procedures and limitations that apply.	ICA ref: N/A	Supplemental ICA ref: N/A
A527.3 (a) (4) Servicing (4) Servicing information that covers details regarding servicing points, capacities of tanks, reservoirs, types of fluids to be used, pressures applicable to the various systems, location of access panels for inspection and servicing, locations of lubrication points, lubricants to be used, equipment required for servicing, tow instructions and limitations, mooring, jacking, and levelling information.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 12	Supplemental ICA ref: N/A
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		
A527.3 (b) Maintenance Instructions. A527.3 (b) (1) Scheduling 1) Scheduling information for each part of the rotorcraft and its engines, auxiliary power units, rotors, accessories, instruments, and equipment that provides the recommended periods at which they should be cleaned, inspected, adjusted, tested, and lubricated, and the degree of inspection, the applicable wear tolerances, and work recommended at these periods. However, the applicant may refer to an accessory, instrument, or equipment manufacturer as the source of this information if the applicant shows that the item has an exceptionally high degree of complexity requiring specialized maintenance techniques, test equipment, or expertise. The recommended overhaul periods and necessary cross-references to the Airworthiness Limitations section of the manual must also be included. In addition, the applicant must include an inspection program that includes the frequency and extent of the inspections necessary to provide for the continued airworthiness of the rotorcraft.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (b) (2) Troubleshooting (2) Troubleshooting information describing probable malfunctions, how to recognize those malfunctions, and the remedial action for those malfunctions.	ICA ref: N/A	Supplemental ICA ref: N/A

MSI 53 - Review of Supplemental Instructions for Continued Airworthiness

APPENDIX A-3 NORMAL CATEGORY ROTORCRAFT - CAR 527

BLOCK 1

Name of the applicant for the design change approval:

Aero Design Ltd.

Description of the design change:

Installation of Low Mounted Fixed Cargo Baskets on Bell 206L Series and 407

Certification Basis of design change and revision date:

FAR 27, Amendment 27-30

CAR Standard A527.1(c) Program showing how changes to supplemental IGA made by the applicant or by the manufacturers of products and appliances installed in the aeroplane pursuant to the design change will be distributed:

Section 0-3 of Supplemental ICA (ICA 492.90, Rev. 2)

Installation Drawing 49201, 60601

BLOCK 2

Note: Enter "N/A" when no supplemental ICA are needed.

CAR Standard 513.05 (1) (g) (iv): Installation Instructions:

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.2 (a) Manual(s) (a) The Instructions for Continued Airworthiness must be in the form of a manual or manuals as appropriate for the quantity of data to be provided.	ICA ref: Bell 206L/407 Maintenance Manuals, BHT-206L-MM/BHT-407- MM	Supplemental ICA ref: Single Manual (ICA492.90)
A527.2 (b) Practical arrangement (b) The format of the manual or manuals must provide for a practical arrangement.	ICA ref: Bell 206L/407 Maintenance Manuals	Supplemental ICA ref: Arranged in ATA format
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		
A527.3 (a) Rotorcraft maintenance manual or section		
A527.3 (a) (1) (Introduction) (1) Introduction information that includes an explanation of the rotorcraft's features and data to the extent necessary for maintenance or preventive maintenance.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 1	Supplemental ICA ref: Section 0-1
A527.3 (a) (2) (Description) (2) A description of the rotorcraft and its systems and installations including its engines, rotors, and appliances.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 1	Supplemental ICA ref: Section 0-5, 0-6

MSI 53 - Review of Supplemental Instructions for Continued Airworthiness

BLOCK 3

Note: The statement in block 5 does not constitute an approval of the Airworthiness Limitations Section. Airworthiness Limitations differ from other maintenance tasks, in that they are mandatory, as a direct condition of the approval of the type design. They are therefore referenced directly in the approval document itself. However, they must also be included in the Supplemental Instructions for Continued Airworthiness.

A 527 A AMI Congress Continued						
A527.4 AWL - Separate Section 1 The Instructions for Continued Airworthiness must contain a section titled Airworthiness Limitations that is segregated and clearly distinguishable from the rest of the document. This section must set forth each mandatory replacement time, structural inspection interval, and related structural inspection procedure approved under 527.571. If the Instructions for Continued Airworthiness consist of multiple documents, the section required by this paragraph must be included in the principal manual. This section must contain a legible statement in a prominent location that reads: "The Airworthiness Limitations section is approved by the Minister and specifies maintenance required by any applicable airworthiness	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 4	Supplemental ICA ref: Chapter 4				
or operating rule unless an alternative program has been approved by the Minister."						
BLOCK 4 – Applicant Statement of Compliance		•				
The Supplemental ICA referenced above comprises that supports this change in type design.	the complete listing of supplemental ICA necess	eary to show compliance with the regulatory standard				
Applicants Signature: Date: 25 June 2017						
Applicants Name: Jeff Clarke, Vice President - Aero Design Ltd.						
BLOCK 5 – Minister's Statement of Acceptability						
The design change is adequately supported by existing ICA and/or supplemental ICA, as identified above and is acceptable to the Minister.						
Reviewer's Name: Michael Chun Phone # 604-666-8458 Email: Muchael Chunetc.gc. Ca Mail Routing Symbol: 144/ Signature: Date: Det. 2, 2017 . NAPA Number:						
Signature: Althology	Date: Oct. 2, 2017.	NAPA Number:				

MSI 53 - Review of Supplemental Instructions for Continued Airworthiness

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (b) (3) Removal/replacement (3) Information describing the order and method of removing and replacing products and parts with any necessary precautions to be taken.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 25	Supplemental ICA ref: Section 25-1 thru 25-8
A527.3 (b) (4) General (4) Other general procedural instructions including procedures for system testing during ground running, symmetry checks, weighing and determining the center of gravity, lifting and shoring, and storage limitations.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 7 and 8	Supplemental ICA ref: Section 25-9
A527.3 (c) Access (c) Diagrams of structural access plates and information needed to gain access for inspections when access plates are not provided.	ICA ref: N/A	Supplemental ICA ref: N/A
A527.3 (d) Special inspections (d) Details for the application of special inspection techniques including radiographic and ultrasonic testing where such processes are specified.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (e) Protective treatment (e) Information needed to apply protective treatments to the structure after inspection.	ICA ref: Bell Standard Practices Manual BHT-ALL-SPM, Chapter 3	Supplemental ICA ref: Section 5-3
A527.3 (f) Fasteners, torque values, etc (f) All data relative to structural fasteners such as identification, discard recommendations, and torque values.	ICA ref: Bell Standard Practices Manual BHT-ALL-SPM, Chapter 2	Supplemental ICA ref: Section 25-10
A527.3 (g) Special tools (g) A list of special tools needed.	ICA ref: N/A	Supplemental ICA ref: N/A

MSI 53 - Review of Supplemental Instructions for Continued Airworthiness

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (a) (3) Control & Operation (3) Basic control and operation information describing how the rotorcraft components and systems are controlled and how they operate, including any special procedures and limitations that apply.	ICA ref: N/A	Supplemental ICA ref: N/A
A527.3 (a) (4) Servicing (4) Servicing information that covers details regarding servicing points, capacities of tanks, reservoirs, types of fluids to be used, pressures applicable to the various systems, location of access panels for inspection and servicing, locations of lubrication points, lubricants to be used, equipment required for servicing, tow instructions and limitations, mooring, jacking, and levelling information.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 12	Supplemental ICA ref: N/A
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		
A527.3 (b) Maintenance Instructions. A527.3 (b) (1) Scheduling 1) Scheduling information for each part of the		
rotorcraft and its engines, auxiliary power units, rotors, accessories, instruments, and equipment that provides the recommended periods at which they should be cleaned, inspected, adjusted, tested, and lubricated, and the degree of inspection, the applicable wear tolerances, and work recommended at these periods. However, the applicant may refer to an accessory, instrument, or equipment manufacturer as the source of this information if the applicant shows that the item has an exceptionally high degree of complexity requiring specialized maintenance techniques, test equipment, or expertise. The recommended overhaul periods and necessary cross-references to the Airworthiness Limitations section of the manual must also be included. In addition, the applicant must include an inspection program that includes the frequency and extent of the inspections necessary to provide for the continued airworthiness of the rotorcraft.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (b) (2) Troubleshooting (2) Troubleshooting information describing probable malfunctions, how to recognize those malfunctions, and the remedial action for those malfunctions.	ICA ref: N/A	Supplemental ICA ref: N/A

APPENDIX A-3 NORMAL CATEGORY ROTORCRAFT - CAR 527

BLOCK 1

Name of the applicant for the design change approval:

Aero Design Ltd.

Description of the design change:

Installation of High Mounted Quick Release Cargo Baskets on Bell 206L Series and 407

Certification Basis of design change and revision date:

FAR 27, Amendment 27-30

CAR Standard A527.1(c) Program showing how changes to supplemental ICA made by the applicant or by the manufacturers of products and appliances installed in the aeroplane pursuant to the design change will be distributed:

Section 0-3 of Supplemental ICA (ICA 766.90, Rev. 1)

CAR Standard 513.05 (1) (g) (iv): Installation Instructions:

Installation Drawing 76601

BLOCK 2

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.2 (a) Manual(s) (a) The Instructions for Continued Airworthiness must be in the form of a manual or manuals as appropriate for the quantity of data to be provided.	ICA ref: Bell 206L/407 Maintenance Manuals, BHT-206L-MM/BHT-407- MM	Supplemental ICA ref: Single Manual (ICA766.90)
A527.2 (b) Practical arrangement (b) The format of the manual or manuals must provide for a practical arrangement.	ICA ref: Bell 206L/407 Maintenance Manuals	Supplemental ICA ref: Arranged in ATA format
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		
A527.3 (a) Rotorcraft maintenance manual or section		
A527.3 (a) (1) (Introduction) (1) Introduction information that includes an explanation of the rotorcraft's features and data to the extent necessary for maintenance or preventive maintenance.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 1	Supplemental ICA ref: Section 0-1
A527.3 (a) (2) (Description) (2) A description of the rotorcraft and its systems and installations including its engines, rotors, and appliances.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 1	Supplemental ICA ref: Section 0-5, 0-6

BLOCK 3

Note: The statement in block 5 does not constitute an approval of the Airworthiness Limitations Section. Airworthiness Limitations differ from other maintenance tasks, in that they are mandatory, as a direct condition of the approval of the type design. They are therefore referenced directly in the approval document itself. However, they must also be included in the Supplemental Instructions for Continued Airworthiness.

A527.4 AWL - Separate Section 1 The Instructions for Continued Airworthiness must contain a section titled Airworthiness Limitations that is segregated and clearly distinguishable from the rest of the document. This section must set forth each mandatory replacement time, structural inspection interval, and related structural inspection procedure ICA ref: Bell 206L/407 Maintenance approved under 527.571. If the Instructions for Supplemental ICA ref: Chapter 4 Continued Airworthiness consist of multiple Manual, Chapter 4 documents, the section required by this paragraph must be included in the principal manual. This section must contain a legible statement in a prominent location that reads: "The Airworthiness Limitations section is approved by the Minister and specifies maintenance required by any applicable airworthiness or operating rule unless an alternative program has

been approved by the Minister."		
LOCK 4 – Applicant Statement of Compliance		
The Supplemental ICA referenced above comprises that supports this change in type design.	the complete listing of supplemental ICA necess	ary to show compliance with the regulatory standard
Applicants Signature:	Ch.	Date: 25 June 2017
Applicants Name: Jeff Clarke, Vice President	- Aero Design Ltd.	
BLOCK 5 – Minister's Statement of Acceptability		
The design change is adequately supported by exist	ing ICA and/or supplemental ICA, as identified a	bove and is acceptable to the Minister.
Reviewer's Name: Michael Chan Phone #	608-666-8458 Email: Midael ch	anelaga Ca Mail Routing Symbol: 744)
Signature: Molano	Date: Oct. 2, 2, 7	NAPA Number: <u>1-17-017-2</u>

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (b) (3) Removal/replacement (3) Information describing the order and method of removing and replacing products and parts with any necessary precautions to be taken.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 32	Supplemental ICA ref: Section 32-1 thru 32-4
A527.3 (b) (4) General (4) Other general procedural instructions including procedures for system testing during ground running, symmetry checks, weighing and determining the center of gravity, lifting and shoring, and storage limitations.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 7 and 8	Supplemental ICA ref: Section 32-5
A527.3 (c) Access (c) Diagrams of structural access plates and information needed to gain access for inspections when access plates are not provided.	ICA ref: N/A	Supplemental ICA ref: N/A
A527.3 (d) Special inspections (d) Details for the application of special inspection techniques including radiographic and ultrasonic testing where such processes are specified.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (e) Protective treatment (e) Information needed to apply protective treatments to the structure after inspection.	ICA ref: Bell Standard Practices Manual BHT-ALL-SPM, Chapter 3	Supplemental ICA ref: Section 5-3
A527.3 (f) Fasteners, torque values, etc (f) All data relative to structural fasteners such as identification, discard recommendations, and torque values.	ICA ref: Bell Standard Practices Manual BHT-ALL-SPM, Chapter 2	Supplemental ICA ref: Section 32-6
A527.3 (g) Special tools (g) A list of special tools needed.	ICA ref: N/A	Supplemental ICA ref: N/A

MSI 53 – Review of Supplemental Instructions for Continued Airworthiness

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (a) (3) Control & Operation (3) Basic control and operation information describing how the rotorcraft components and systems are controlled and how they operate, including any special procedures and limitations that apply.	ICA ref: N/A	Supplemental ICA ref: N/A
A527.3 (a) (4) Servicing (4) Servicing information that covers details regarding servicing points, capacities of tanks, reservoirs, types of fluids to be used, pressures applicable to the various systems, location of access panels for inspection and servicing, locations of lubrication points, lubricants to be used, equipment required for servicing, tow instructions and limitations, mooring, jacking, and levelling information.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 12	Supplemental ICA ref: N/A
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		
A527.3 (b) Maintenance Instructions. A527.3 (b) (1) Scheduling 1) Scheduling information for each part of the rotorcraft and its engines, auxiliary power units, rotors, accessories, instruments, and equipment that provides the recommended periods at which they should be cleaned, inspected, adjusted, tested, and lubricated, and the degree of inspection, the applicable wear tolerances, and work recommended at these periods. However, the applicant may refer to an accessory, instrument, or equipment manufacturer as the source of this information if the applicant shows that the item has an exceptionally high degree of complexity requiring specialized maintenance techniques, test equipment, or expertise. The recommended overhaul periods and necessary cross-references to the Airworthiness Limitations section of the manual must also be included. In addition, the applicant must include an inspection program that includes the frequency and extent of the inspections necessary to provide for the continued airworthiness of the rotorcraft.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (b) (2) Troubleshooting (2) Troubleshooting information describing probable malfunctions, how to recognize those malfunctions, and the remedial action for those malfunctions.	ICA ref: N/A	Supplemental ICA ref: N/A

APPENDIX A-3 NORMAL CATEGORY ROTORCRAFT - CAR 527

BLOCK 1

Name of the applicant for the design change approval:

Aero Design Ltd.

Description of the design change:

Installation of External Attachment Provisions on Bell 407

Certification Basis of design change and revision date:

FAR 27, Amendment 27-30

CAR Standard A527.1(c) Program showing how changes to supplemental ICA made by the applicant or by the manufacturers of products and appliances installed in the aeroplane pursuant to the design change will be distributed:

Section 0-3 of Supplemental ICA (ICA 700.90, Rev. 1)

CAR Standard 513.05 (1) (g) (iv): Installation Instructions:

Installation Drawing 60602

BLOCK 2

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.2 (a) Manual(s) (a) The Instructions for Continued Airworthiness must be in the form of a manual or manuals as appropriate for the quantity of data to be provided.	ICA ref: Bell 206L/407 Maintenance Manuals, BHT-206L-MM/BHT-407- MM	Supplemental ICA ref: Single Manual (ICA700.90)
A527.2 (b) Practical arrangement (b) The format of the manual or manuals must provide for a practical arrangement.	ICA ref: Bell 206L/407 Maintenance Manuals	Supplemental ICA ref: Arranged in ATA format
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		
A527.3 (a) Rotorcraft maintenance manual or section		
A527.3 (a) (1) (Introduction) (1) Introduction information that includes an explanation of the rotorcraft's features and data to the extent necessary for maintenance or preventive maintenance.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 1	Supplemental ICA ref: Section 0-1
A527.3 (a) (2) (Description) (2) A description of the rotorcraft and its systems and installations including its engines, rotors, and appliances.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 1	Supplemental ICA ref: Section 0-5

BLOCK 3

Note: The statement in block 5 does not constitute an approval of the Airworthiness Limitations Section. Airworthiness Limitations differ from other maintenance tasks, in that they are mandatory, as a direct condition of the approval of the type design. They are therefore referenced directly in the approval document itself. However, they must also be included in the Supplemental Instructions for Continued Airworthiness.

A E CZ A ANY Consults Continued		
A527.4 AWL - Separate Section 1 The Instructions for Continued Airworthiness must contain a section titled Airworthiness Limitations that is segregated and clearly distinguishable from the rest of the document. This section must set forth each mandatory replacement time, structural inspection interval, and related structural inspection procedure approved under 527.571. If the Instructions for Continued Airworthiness consist of multiple documents, the section required by this paragraph must be included in the principal manual. This section must contain a legible statement in a prominent location that reads: "The Airworthiness Limitations section is approved by the Minister and specifies maintenance required by any applicable airworthiness or operating rule unless an alternative program has been approved by the Minister."	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 4	Supplemental ICA ref: Chapter 4
BLOCK 4 – Applicant Statement of Compliance		
The Supplemental ICA referenced above comprises that supports this change in type design.	the complete listing of supplemental ICA necess	sary to show compliance with the regulatory standard
Applicants Signature:		Date: <u>25 June 2017</u>
Applicants Name: <u>Jeff Clarke, Vice President</u>	t - Aero Design Ltd.	
BLOCK 5 – Minister's Statement of Acceptability		
The design change is adequately supported by exist	ting ICA and/or supplemental ICA, as identified al	bove and is acceptable to the Minister.
Reviewer's Name: <u>Michael Chan</u> Phone #	604-666-8458 Email: Michael che	and tage. ca Mail Routing Symbol: 744
Signature: Whole Color	Date: DOX 2 7017	MADA Number / 12 0/2 2

MSI 53 - Review of Supplemental Instructions for Continued Airworthiness

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (b) (3) Removal/replacement (3) Information describing the order and method of removing and replacing products and parts with any necessary precautions to be taken.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 25	Supplemental ICA ref: Section 25-1 thru 25-9
A527.3 (b) (4) General (4) Other general procedural instructions including procedures for system testing during ground running, symmetry checks, weighing and determining the center of gravity, lifting and shoring, and storage limitations.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 7 and 8	Supplemental ICA ref: Section 25-10
A527.3 (c) Access (c) Diagrams of structural access plates and information needed to gain access for inspections when access plates are not provided.	ICA ref: N/A	Supplemental ICA ref: N/A
A527.3 (d) Special inspections (d) Details for the application of special inspection techniques including radiographic and ultrasonic testing where such processes are specified.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (e) Protective treatment (e) Information needed to apply protective treatments to the structure after inspection.	ICA ref: Bell Standard Practices Manual BHT-ALL-SPM, Chapter 3	Supplemental ICA ref: Section 5-3
A527.3 (f) Fasteners, torque values, etc (f) All data relative to structural fasteners such as identification, discard recommendations, and torque values.	ICA ref: Bell Standard Practices Manual BHT-ALL-SPM, Chapter 2	Supplemental ICA ref: Section 25-11
A527.3 (g) Special tools (g) A list of special tools needed.	ICA ref: N/A	Supplemental ICA ref: N/A

MSI 53 - Review of Supplemental Instructions for Continued Airworthiness

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (a) (3) Control & Operation (3) Basic control and operation information describing how the rotorcraft components and systems are controlled and how they operate, including any special procedures and limitations that apply.	ICA ref: N/A	Supplemental ICA ref: N/A
A527.3 (a) (4) Servicing (4) Servicing information that covers details regarding servicing points, capacities of tanks, reservoirs, types of fluids to be used, pressures applicable to the various systems, location of access panels for inspection and servicing, locations of lubrication points, lubricants to be used, equipment required for servicing, tow instructions and limitations, mooring, jacking, and levelling information.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 12	Supplemental ICA ref: N/A
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		
A527.3 (b) Maintenance Instructions. A527.3 (b) (1) Scheduling 1) Scheduling information for each part of the		
rotorcraft and its engines, auxiliary power units, rotors, accessories, instruments, and equipment that provides the recommended periods at which they should be cleaned, inspected, adjusted, tested, and lubricated, and the degree of inspection, the applicable wear tolerances, and work recommended at these periods. However, the applicant may refer to an accessory, instrument, or equipment manufacturer as the source of this information if the applicant shows that the item has an exceptionally high degree of complexity requiring specialized maintenance techniques, test equipment, or expertise. The recommended overhaul periods and necessary cross-references to the Airworthiness Limitations section of the manual must also be included. In addition, the applicant must include an inspection program that includes the frequency and extent of the inspections necessary to provide for the continued airworthiness of the rotorcraft.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (b) (2) Troubleshooting (2) Troubleshooting information describing probable malfunctions, how to recognize those malfunctions, and the remedial action for those malfunctions.	ICA ref: N/A	Supplemental ICA ref: N/A

APPENDIX A-3 NORMAL CATEGORY ROTORCRAFT - CAR 527

BLOCK 1

Name of the applicant for the design change approval:

Aero Design Ltd.

Description of the design change:

Installation of Low Mounted Quick Release Cargo Baskets on Bell 206L Series and 407

Certification Basis of design change and revision date:

FAR 27, Amendment 27-30

CAR Standard A527.1(c) Program showing how changes to supplemental ICA made by the applicant or by the manufacturers of products and appliances installed in the aeroplane pursuant to the design change will be distributed:

Section 0-3 of Supplemental ICA (ICA 698.90, Rev. 4)

CAR Standard 513.05 (1) (g) (iv): Installation Instructions:

Installation Drawing 70101, 70102, 70201, 70202, 94501, 94502, 94601, 94602

BLOCK 2

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.2 (a) Manual(s) (a) The Instructions for Continued Airworthiness must be in the form of a manual or manuals as appropriate for the quantity of data to be provided.	ICA ref: Bell 206L/407 Maintenance Manuals, BHT-206L-MM/BHT-407- MM	Supplemental ICA ref: Single Manual (ICA698.90)
A527.2 (b) Practical arrangement (b) The format of the manual or manuals must provide for a practical arrangement.	ICA ref: Bell 206L/407 Maintenance Manuals	Supplemental ICA ref: Arranged in ATA format
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		
A527.3 (a) Rotorcraft maintenance manual or section		
A527.3 (a) (1) (Introduction) (1) Introduction information that includes an explanation of the rotorcraft's features and data to the extent necessary for maintenance or preventive maintenance.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 1	Supplemental ICA ref: Section 0-1
A527.3 (a) (2) (Description) (2) A description of the rotorcraft and its systems and installations including its engines, rotors, and appliances.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 1	Supplemental ICA ref: Section 0-5, 0-6

BLOCK 3

Note: The statement in block 5 does not constitute an approval of the Airworthiness Limitations Section. Airworthiness Limitations differ from other maintenance tasks, in that they are mandatory, as a direct condition of the approval of the type design. They are therefore referenced directly in the approval document itself. However, they must also be included in the Supplemental Instructions for Continued Airworthiness.

	A527.4 AWL - Separate Section 1 The Instructions for Continued Airworthiness must contain a section titled Airworthiness Limitations that is segregated and clearly distinguishable from the rest of the document. This section must set forth each mandatory replacement time, structural inspection interval, and related structural inspection procedure approved under 527.571. If the Instructions for Continued Airworthiness consist of multiple documents, the section required by this paragraph must be included in the principal manual. This section must contain a legible statement in a prominent location that reads: "The Airworthiness Limitations section is approved by the Minister and specifies maintenance required by any applicable airworthiness or operating rule unless an alternative program has been approved by the Minister."	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 4	Supplemental ICA ref: Chapter 4
5000	BLOCK 4 – Applicant Statement of Compliance		
	The Supplemental ICA referenced above comprises that supports this change in type design.	the complete listing of supplemental ICA necess	sary to show compliance with the regulatory standard
	Applicants Signature:		Date: _25 June 2017
0.00.00.000.0000.0000	Applicants Name: Jeff Clarke, Vice President	t - Aero Design Ltd.	-
	BLOCK 5 – Minister's Statement of Acceptability		
Consideration	The design change is adequately supported by exist	ting ICA and/or supplemental ICA, as identified a	bove and is acceptable to the Minister.
	Reviewer's Name: Michael Chan Phone #	604666-8458 Email: Michael ch	NAPA Number: 1-17-0172
W. C.	Signature: Ladar	Date: Oct. 02, 2017	NAPA Number: 1-17-0172

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (b) (3) Removal/replacement (3) Information describing the order and method of removing and replacing products and parts with any necessary precautions to be taken.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 25	Supplemental ICA ref: Section 25-1, 25-2
A527.3 (b) (4) General (4) Other general procedural instructions including procedures for system testing during ground running, symmetry checks, weighing and determining the center of gravity, lifting and shoring, and storage limitations.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 7 and 8	Supplemental ICA ref: Section 25-3
A527.3 (c) Access (c) Diagrams of structural access plates and information needed to gain access for inspections when access plates are not provided.	ICA ref: N/A	Supplemental ICA ref: N/A
A527.3 (d) Special inspections (d) Details for the application of special inspection techniques including radiographic and ultrasonic testing where such processes are specified.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (e) Protective treatment (e) Information needed to apply protective treatments to the structure after inspection.	ICA ref: Bell Standard Practices Manual BHT-ALL-SPM, Chapter 3	Supplemental ICA ref: Section 5-3
A527.3 (f) Fasteners, torque values, etc (f) All data relative to structural fasteners such as identification, discard recommendations, and torque values.	ICA ref: Bell Standard Practices Manual BHT-ALL-SPM, Chapter 2	Supplemental ICA ref: Section 25-4
A527.3 (g) Special tools (g) A list of special tools needed.	ICA ref: N/A	Supplemental ICA ref: N/A

MSI 53 – Review of Supplemental Instructions for Continued Airworthiness

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (a) (3) Control & Operation (3) Basic control and operation information describing how the rotorcraft components and systems are controlled and how they operate, including any special procedures and limitations that apply.	ICA ref: N/A	Supplemental ICA ref: N/A
A527.3 (a) (4) Servicing (4) Servicing information that covers details regarding servicing points, capacities of tanks, reservoirs, types of fluids to be used, pressures applicable to the various systems, location of access panels for inspection and servicing, locations of lubrication points, lubricants to be used, equipment required for servicing, tow instructions and limitations, mooring, jacking, and levelling information.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 12	Supplemental ICA ref: N/A
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information: A527.3 (b) Maintenance Instructions.		
A527.3 (b) (1) Scheduling 1) Scheduling information for each part of the rotorcraft and its engines, auxiliary power units, rotors, accessories, instruments, and equipment that provides the recommended periods at which they should be cleaned, inspected, adjusted, tested, and lubricated, and the degree of inspection, the applicable wear tolerances, and work recommended at these periods. However, the applicant may refer to an accessory, instrument, or equipment manufacturer as the source of this information if the applicant shows that the item has an exceptionally high degree of complexity requiring specialized maintenance techniques, test equipment, or expertise. The recommended overhaul periods and necessary cross-references to the Airworthiness Limitations section of the manual must also be included. In addition, the applicant must include an inspection program that includes the frequency and extent of the inspections necessary to provide for the continued airworthiness of the rotorcraft.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (b) (2) Troubleshooting (2) Troubleshooting information describing probable malfunctions, how to recognize those malfunctions, and the remedial action for those malfunctions.	ICA ref: N/A	Supplemental ICA ref: N/A

APPENDIX A-3 NORMAL CATEGORY ROTORCRAFT - CAR 527

BLOCK 1

Name of the applicant for the design change approval:

Aero Design Ltd.

Description of the design change:

Installation of Auxiliary Step on Bell 206B, 206L Series, 407

Certification Basis of design change and revision date:

FAR 27, Amendment 27-30

CAR Standard A527.1(c) Program showing how changes to supplemental ICA made by the applicant or by the manufacturers of products and appliances installed in the aeroplane pursuant to the design change will be distributed:

Section 0-3 of Supplemental ICA (ICA 623.91, Rev. 2)

Installation Drawing 62302

CAR Standard 513.05 (1) (g) (iv): Installation Instructions:

BLOCK 2

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.2 (a) Manual(s) (a) The Instructions for Continued Airworthiness must be in the form of a manual or manuals as appropriate for the quantity of data to be provided.	ICA ref: Bell 206L/407 Maintenance Manuals, BHT-206L-MM/BHT-407- MM	Supplemental ICA ref: Single Manual (ICA623.91)
A527.2 (b) Practical arrangement (b) The format of the manual or manuals must provide for a practical arrangement.	ICA ref: Bell 206L/407 Maintenance Manuals	Supplemental ICA ref: Arranged in ATA format
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		
A527.3 (a) Rotorcraft maintenance manual or section		
A527.3 (a) (1) (Introduction) (1) Introduction information that includes an explanation of the rotorcraft's features and data to the extent necessary for maintenance or preventive maintenance.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 1	Supplemental ICA ref: Section 0-1
A527.3 (a) (2) (Description) (2) A description of the rotorcraft and its systems and installations including its engines, rotors, and appliances.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 1	Supplemental ICA ref: Section 0-5

BLOCK 3

Note: The statement in block 5 does not constitute an approval of the Airworthiness Limitations Section. Airworthiness Limitations differ from other maintenance tasks, in that they are mandatory, as a direct condition of the approval of the type design. They are therefore referenced directly in the approval document itself. However, they must also be included in the Supplemental Instructions for Continued Airworthiness.

A527.4 AWL - Separate Section 1 The Instructions for Continued Airworthiness must contain a section titled Airworthiness Limitations that is segregated and clearly distinguishable from the rest of the document. This section must set forth each mandatory replacement time, structural inspection interval, and related structural inspection procedure approved under 527.571. If the Instructions for Continued Airworthiness consist of multiple documents, the section required by this paragraph must be included in the principal manual. This section must contain a legible statement in a prominent location that reads: "The Airworthiness Limitations section is approved by the Minister and specifies maintenance required by any applicable airworthiness or operating rule unless an alternative program has been approved by the Minister."	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 4	Supplemental ICA	ref: Chapter 4
BLOCK 4 – Applicant Statement of Compliance			
The Supplemental ICA referenced above comprises that supports this change in type design.	the complete listing of supplemental ICA necess	sary to show complianc	e with the regulatory standard
Applicants Signature:			Date: _25 June 2017
Applicants Name: Jeff Clarke, Vice Presiden	t - Aero Design Ltd.	-	
BLOCK 5 – Minister's Statement of Acceptability	manufungo o gladaro o zaginara favoranceza esservivera avigado energadados en los contratores financiamente a	en e	
	tion ICA and/or cumplemental ICA as identified a	have and is accontable	to the Minister
The design change is adequately supported by exis	ung ion and/or supplemental ion, as identified a	inove and is acceptable	to the millioter.
Reviewer's Name: Michael Chan Phone #	#604-666-8458 Email: Michael. cha	m@fc.gc.ca	Mail Routing Symbol:
Signature Lanhal D	Date: Pol 2, 2017	NA	APA Number: P-17-0/77

MSI 53 - Review of Supplemental Instructions for Continued Airworthiness

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (b) (3) Removal/replacement (3) Information describing the order and method of removing and replacing products and parts with any necessary precautions to be taken.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 25	Supplemental ICA ref: Section 25-1 thru 25-6
A527.3 (b) (4) General (4) Other general procedural instructions including procedures for system testing during ground running, symmetry checks, weighing and determining the center of gravity, lifting and shoring, and storage limitations.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 7 and 8	Supplemental ICA ref: Section 25-7
A527.3 (c) Access (c) Diagrams of structural access plates and information needed to gain access for inspections when access plates are not provided.	ICA ref: N/A	Supplemental ICA ref: N/A
A527.3 (d) Special inspections (d) Details for the application of special inspection techniques including radiographic and ultrasonic testing where such processes are specified.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (e) Protective treatment (e) Information needed to apply protective treatments to the structure after inspection.	ICA ref: Bell Standard Practices Manual BHT-ALL-SPM, Chapter 3	Supplemental ICA ref: Section 5-3
A527.3 (f) Fasteners, torque values, etc (f) All data relative to structural fasteners such as identification, discard recommendations, and torque values.	ICA ref: Bell Standard Practices Manual BHT-ALL-SPM, Chapter 2	Supplemental ICA ref: Section 25-8
A527.3 (g) Special tools (g) A list of special tools needed.	ICA ref: N/A	Supplemental ICA ref: N/A

MSI 53 - Review of Supplemental Instructions for Continued Airworthiness

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (a) (3) Control & Operation (3) Basic control and operation information describing how the rotorcraft components and systems are controlled and how they operate, including any special procedures and limitations that apply.	ICA ref: N/A	Supplemental ICA ref: N/A
A527.3 (a) (4) Servicing (4) Servicing information that covers details regarding servicing points, capacities of tanks, reservoirs, types of fluids to be used, pressures applicable to the various systems, location of access panels for inspection and servicing, locations of lubrication points, lubricants to be used, equipment required for servicing, tow instructions and limitations, mooring, jacking, and levelling information.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 12	Supplemental ICA ref: N/A
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information: A527.3 (b) Maintenance Instructions.		
A527.3 (b) (1) Scheduling 1) Scheduling information for each part of the rotorcraft and its engines, auxiliary power units, rotors, accessories, instruments, and equipment that provides the recommended periods at which they should be cleaned, inspected, adjusted, tested, and lubricated, and the degree of inspection, the applicable wear tolerances, and work recommended at these periods. However, the applicant may refer to an accessory, instrument, or equipment manufacturer as the source of this information if the applicant shows that the item has an exceptionally high degree of complexity requiring specialized maintenance techniques, test equipment, or expertise. The recommended overhaul periods and necessary cross-references to the Airworthiness Limitations section of the manual must also be included. In addition, the applicant must include an inspection program that includes the frequency and extent of the inspections necessary to provide for the continued airworthiness of the rotorcraft.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (b) (2) Troubleshooting (2) Troubleshooting information describing probable malfunctions, how to recognize those malfunctions, and the remedial action for those malfunctions.	ICA ref: N/A	Supplemental ICA ref: N/A

APPENDIX A-3 NORMAL CATEGORY ROTORCRAFT - CAR 527

BLOCK 1

Name of the applicant for the design change approval:

Aero Design Ltd.

Description of the design change:

Installation of High Mounted Fixed Cargo Basket on Bell 407

Certification Basis of design change and revision date:

FAR 27, Amendment 27-30

CAR Standard A527.1(c) Program showing how changes to supplemental ICA made by the applicant or by the manufacturers of products and appliances installed in the aeroplane pursuant to the design change will be distributed:

Section 0-3 of Supplemental ICA (ICA 606.90, Rev. 3)

CAR Standard 513.05 (1) (g) (iv): Installation Instructions:

Installation Drawing 60603

BLOCK 2

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.2 (a) Manual(s) (a) The Instructions for Continued Airworthiness must be in the form of a manual or manuals as appropriate for the quantity of data to be provided.	ICA ref: Bell 206L/407 Maintenance Manuals, BHT-206L-MM/BHT-407- MM	Supplemental ICA ref: Single Manual (ICA606.90)
A527.2 (b) Practical arrangement (b) The format of the manual or manuals must provide for a practical arrangement.	ICA ref: Bell 206L/407 Maintenance Manuals	Supplemental ICA ref: Arranged in ATA format
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		
A527.3 (a) Rotorcraft maintenance manual or section		·
A527.3 (a) (1) (Introduction) (1) Introduction information that includes an explanation of the rotorcraft's features and data to the extent necessary for maintenance or preventive maintenance.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 1	Supplemental ICA ref: Section 0-1
A527.3 (a) (2) (Description) (2) A description of the rotorcraft and its systems and installations including its engines, rotors, and appliances.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 1	Supplemental ICA ref: Section 0-5, 0-6

BLOCK 3

Note: The statement in block 5 does not constitute an approval of the Airworthiness Limitations Section. Airworthiness Limitations differ from other maintenance tasks, in that they are mandatory, as a direct condition of the approval of the type design. They are therefore referenced directly in the approval document itself. However, they must also be included in the Supplemental Instructions for Continued Airworthiness.

- 11	A MICHAEL A RANKEY MA		
	A527.4 AWL - Separate Section 1 The Instructions for Continued Airworthiness must contain a section titled Airworthiness Limitations that is segregated and clearly distinguishable from the rest of the document. This section must set forth each mandatory replacement time, structural inspection interval, and related structural inspection procedure approved under 527.571. If the Instructions for Continued Airworthiness consist of multiple documents, the section required by this paragraph must be included in the principal manual. This section must contain a legible statement in a prominent location that reads: "The Airworthiness Limitations section is approved by the Minister and specifies maintenance required by any applicable airworthiness or operating rule unless an alternative program has been approved by the Minister."	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 4	Supplemental ICA ref: Chapter 4
Par Print	BLOCK 4 – Applicant Statement of Compliance		
PERSONAL PROPERTY OF THE PERSONS NAMED IN	The Supplemental ICA referenced above comprises that supports this change in type design.	the complete listing of supplemental ICA necess	sary to show compliance with the regulatory standard
	Applicants Signature:	·	Date: <u>25 June 2017</u>
	Applicants Name: <u>Jeff Clarke, Vice President</u>	- Aero Design Ltd.	•
	BLOCK 5 – Minister's Statement of Acceptability		
-	The design change is adequately supported by exist	ting ICA and/or supplemental ICA as identified a	have and is assentable to the Minister
THE PERSON NAMED IN			10 TO 10 10 10 10 10 10 10 10 10 10 10 10 10
COMMUNICACIONAL DESCRIPTION OF THE PERSON NAMED IN	Reviewer's Name: Michael Chan Phone #	604.666. DYSS Email: Michael cha	Mail Routing Symbol: 1441
CONTRACTOR OF THE PERSON	Simon () (pop hold)	Det 2 2 17	0,2 -12

MSI 53 - Review of Supplemental Instructions for Continued Airworthiness

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (b) (3) Removal/replacement (3) Information describing the order and method of removing and replacing products and parts with any necessary precautions to be taken.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 32	Supplemental ICA ref: Section 32-1 thru 32-4
A527.3 (b) (4) General (4) Other general procedural instructions including procedures for system testing during ground running, symmetry checks, weighing and determining the center of gravity, lifting and shoring, and storage limitations.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 7 and 8	Supplemental ICA ref: Section 32-5
A527.3 (c) Access (c) Diagrams of structural access plates and information needed to gain access for inspections when access plates are not provided.	ICA ref: N/A	Supplemental ICA ref: N/A
A527.3 (d) Special inspections (d) Details for the application of special inspection techniques including radiographic and ultrasonic testing where such processes are specified.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (e) Protective treatment (e) Information needed to apply protective treatments to the structure after inspection.	ICA ref: Bell Standard Practices Manual BHT-ALL-SPM, Chapter 3	Supplemental ICA ref: Section 5-3
A527.3 (f) Fasteners, torque values, etc (f) All data relative to structural fasteners such as identification, discard recommendations, and torque values.	ICA ref: Bell Standard Practices Manual BHT-ALL-SPM, Chapter 2	Supplemental ICA ref: Section 32-6
A527.3 (g) Special tools (g) A list of special tools needed.	ICA ref: N/A	Supplemental ICA ref: N/A

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (a) (3) Control & Operation (3) Basic control and operation information describing how the rotorcraft components and systems are controlled and how they operate, including any special procedures and limitations that apply.	ICA ref: N/A	Supplemental ICA ref: N/A
A527.3 (a) (4) Servicing (4) Servicing information that covers details regarding servicing points, capacities of tanks, reservoirs, types of fluids to be used, pressures applicable to the various systems, location of access panels for inspection and servicing, locations of lubrication points, lubricants to be used, equipment required for servicing, tow instructions and limitations, mooring, jacking, and levelling information.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 12	Supplemental ICA ref: N/A
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information: A527.3 (b) Maintenance Instructions.		
A527.3 (b) (1) Scheduling 1) Scheduling information for each part of the rotorcraft and its engines, auxiliary power units, rotors, accessories, instruments, and equipment that provides the recommended periods at which they should be cleaned, inspected, adjusted, tested, and lubricated, and the degree of inspection, the applicable wear tolerances, and work recommended at these periods. However, the applicant may refer to an accessory, instrument, or equipment manufacturer as the source of this information if the applicant shows that the item has an exceptionally high degree of complexity requiring specialized maintenance techniques, test equipment, or expertise. The recommended overhaul periods and necessary cross-references to the Airworthiness Limitations section of the manual must also be included. In addition, the applicant must include an inspection program that includes the frequency and extent of the inspections necessary to provide for the continued airworthiness of the rotorcraft.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (b) (2) Troubleshooting (2) Troubleshooting information describing probable malfunctions, how to recognize those malfunctions, and the remedial action for those malfunctions.	ICA ref: N/A	Supplemental ICA ref: N/A

APPENDIX A-3 NORMAL CATEGORY ROTORCRAFT - CAR 527

BLOCK 1

Name of the applicant for the design change approval:

Aero Design Ltd.

Description of the design change:

Installation of External Attachment Provisions on Bell 206L Series

Certification Basis of design change and revision date:

FAR 27, Amendment 27-24

CAR Standard A527.1(c) Program showing how changes to supplemental ICA made by the applicant or by the manufacturers of products and appliances installed in the aeroplane pursuant to the design change will be distributed:

Section 0-3 of Supplemental ICA (ICA 493.90, Rev. 1)

CAR Standard 513.05 (1) (g) (iv): Installation Instructions:

Installation Drawing 49301

BLOCK 2

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.2 (a) Manual(s) (a) The Instructions for Continued Airworthiness must be in the form of a manual or manuals as appropriate for the quantity of data to be provided.	ICA ref: Bell 206L/407 Maintenance Manuals, BHT-206L-MM/BHT-407- MM	Supplemental ICA ref: Single Manual (ICA493.90)
A527.2 (b) Practical arrangement (b) The format of the manual or manuals must provide for a practical arrangement.	ICA ref: Bell 206L/407 Maintenance Manuals	Supplemental ICA ref: Arranged in ATA format
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		
A527.3 (a) Rotorcraft maintenance manual or section		
A527.3 (a) (1) (Introduction) (1) Introduction information that includes an explanation of the rotorcraft's features and data to the extent necessary for maintenance or preventive maintenance.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 1	Supplemental ICA ref: Section 0-1
A527.3 (a) (2) (Description) (2) A description of the rotorcraft and its systems and installations including its engines, rotors, and appliances.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 1	Supplemental ICA ref: Section 0-5

(The Current Approval/Configuration Control List for Fabricated Parts, Assemblies and Other Documents and a Complete Listing of the Applicable Design Compliance Documents)

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT
REV.	NO.	REV.	DATE	DOCOMENT CONTENT
		FABRICAT	TION AND ASS	SEMBLY DOCUMENTS
0	49311	5	09/10/2016	Forward Fitting Fabrication
0	49312	5	09/10/2016	Aft Fitting Fabrication
0	49320	2	01/10/2016	Barrel Nut
		DESIG	GN COMPLIAN	NCE DOCUMENTS
0	ER493.01	1	09/05/2002	Engineering Report
0	ER493.03	0	05/06/2002	Engineering Report – Flange reduction
0	261.02	0	25/07/1997	Engineering Report – Honeycomb Insert load test
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	4			
			·	

DCL REVISION CONTROL						
DCL	DCL REV.	REVISION	APPROVED	DESCRIPTION		
REV.	DATE	BY	BY	DESCRIPTION		
0	10/04/2017	Jeff Clarke	TCCA - Pacific	Original. Documents transferred from DCL493 Rev. 6.		
		2				

CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION PACIFIC REGION	9888A Mal Powell River, BC,	esign Ltd. aspina Road Canada, V8A 0G3 www.aerodesign.ca		
OCT 0 5 2017	Bell 206 L Series External Attachment Provisions Fabrication			
APPROVED	Document Control List Number	Revision	Sheet	
SHOW-48 ISSUE/O	DCL493-11	0	1 of 1	

(The Current Approval/Configuration Control List for Fabricated Parts, Assemblies and Other Documents and a Complete Listing of the Applicable Design Compliance Documents)

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT			
REV.	NO.	REV.	DATE	DOCUMENT CONTENT			
FABRICATION AND ASSEMBLY DOCUMENTS							
0	60620	2	09/10/2016	Aft Block Fabrication			
0	60621	2	09/10/2016	Forward Fitting Fabrication			
0	60622	2	09/10/2016	Barrel Nut			
0	60624	1	09/10/2016	Barrel Nut			
		DESIG	GN COMPLIAN	ICE DOCUMENTS			
0	ER606.01	0	30/03/2004	Engineering Report			
0	ER606.02	0	01/04/2004	Engineering Report – Load Test			
0	ER493.01	1	09/05/2002	Engineering Report			
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	DCL REVISION CONTROL							
DCL	DCL REV.	REVISION	APPROVED	DESCRIPTION				
REV.	DATE	BY	BY	DESCRIPTION				
0	10/04/2017	Jeff Clarke	TCCA - Pacific	Original. Documents transferred from DCL700 Rev. 1.				
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APPROVAL:			
CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION PACIFIC REGION	Aero De 9888A Mala Powell River, BC, Tel: 604.483.2376	aspina Road Canada, V8A 0G3	
OCT 0 5 2017	Bell 407		
APPROVED.	External Attachment Provi	sions Fabrio	cation
RV Cul	Document Control List Number	Revision	Sheet
CERTIFICATE NO. SHOW YS ISSUE/O	DCL700-11	0	1 of 1

(The Current Approval/Configuration Control List for Fabricated Parts, Assemblies and Other Documents and a Complete Listing of the Applicable Design Compliance Documents)

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT			
REV.	NO.	REV.	DATE	DOCOMENT CONTENT			
FABRICATION AND ASSEMBLY DOCUMENTS							
1	76610	1	09/08/2016	Cargo Basket Assembly			
1	76611	1	25/06/2017	Basket Fabrication			
1	76612	0	09/08/2016	Lid Fabrication			
1	76624	0	25/06/2017	Forward Attachment Hoop			
1	76625	0	25/06/2017	Aft Attachment Hoop			
1	76623	1	29/09/2016	Ноор			
1	76627	1	09/08/2016	Placard			
1	76630	1	26/09/2016	Support Beams			
1	49215	1	13/03/2014	Spacer			
1	49216	1	13/03/2014	Spacer			
1	69823	. 2	22/05/2014	Lugs			
1	84240	0	21/05/2014	Lid Brace Installation			
1	84255	2	13/03/2014	Handle Assembly			

	DCL REVISION CONTROL							
DCL	DCL REV.	REVISION	APPROVED	DESCRIPTION				
REV.	DATE	BY	BY	DESCRIPTION				
0	03/05/2006	Jeff Clarke	TCCA - PNR	Original issue.				
1	25/06/2017	Jeff Clarke	TCCA - Pacific	Renumbered from 766-2. DCL format updated. New address. Handle configuration updated. Minor changes.				
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APPROV	AL:
A PRIMARY TO THE PRIM	CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION PACIFIC REGION OCT 0 5 2017
	APPROVED BY CERTIFICATE NO. SHOW- 48 ISSUE/o



Aero Design Ltd.

9888A Malaspina Road Powell River, BC, Canada, V8A 0G3 Tel: 604.483.2376 www.aerodesign.ca

Bell 206L Series & 407
Quick Release Cargo Basket Assembly

Document Control List Number

DCL766-11

Revision

Sheet

1

1 of 2

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT
REV.	NO.	REV.	DATE	DOCUMENT CONTENT
	FABRIC	ATION A	ND ASSEMBLY	DOCUMENTS (CONTINUED)
1	84261	2	13/03/2014	Handle Bar Assembly
1	84262	2	14/02/2014	Basket Handle Provisions Assembly
1	84263	0	14/02/2014	Lid Handle Provisions Assembly
1	84265	2	13/03/2014	Handle Lever
1	84267	1	13/03/2014	Handle Bracket
1	84272	1	13/03/2014	Bushing
1	36273	2	18/02/2014	Lid Bracket
1	36274	3	13/03/2014	Bushing
1	36275	4	04/10/2013	Bushing
1	36277	1	13/03/2014	Handle Bar
1	36278	4	01/12/2014	Spring
1	36280	3	13/03/2014	Lid Brace Assembly
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		DESI	GN COMPLIAN	NCE DOCUMENTS
0	ER766.01	0	25/09/2007	Engineering Report
0	TP766.02	0	26/09/2007	Load Test Plan and Report
1	ER766.03	0	25/06/2017	Engineering Report – Minor Changes
0	ER606.03	0	18/01/2005	Engineering Report
1	ER842.01	0	14/10/2011	Engineering Report – New handle configuration
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Document Control List Number		Revision	Sheet
DCL766-11		1.1	2 of 2
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(Listing of Current Approved and Accepted Documents)

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT			
REV.	NO.	REV.	DATE	DOCUMENT CONTENT			
FABRICATION AND ASSEMBLY DOCUMENTS							
1	80010	2,	11/12/2014	Step Assembly			
1	80020	1	10/12/2014	Step End Fabrication			
		DESI	GN COMPLIAN	NCE DOCUMENTS			
0	ER800.02	0	12/11/2008	Engineering Report			
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	DCL REVISION CONTROL							
DCL	DCL REV.	REVISION	APPROVED	DESCRIPTION				
REV.	DATE	BY	BY	DESCRIPTION				
0	02/12/2008	Jeff Clarke	TCCA - PNR	Original.				
1	31/05/2017	Jeff Clarke	TCCA - Pacific	Format changed. New address.				
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APPROVAL: CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION	9888A Mala	sign Ltd.	-
PACIFIC REGION OCT 0 5 2017 ARPROVED	Bell 206L Series Quick Release Step F	& 407	
CERTIFICATE NO. SHOW— YS ISSUE/6	DCL800-12	Revision 1	1 of 1

(The Current Approval/Configuration Control List for Fabricated Parts, Assemblies and Other Documents and a Complete Listing of the Applicable Design Compliance Documents)

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT			
REV.	NO.	REV.	DATE				
FABRICATION AND ASSEMBLY DOCUMENTS							
1	94510	1	04/12/2016	Cargo Basket Assembly			
1	94511	1	04/12/2016	Basket Fabrication			
1	69812	4	11/07/2014	Lid Fabrication			
1	94520	1	04/12/2016	Ноор			
1	94521	1	19/11/2016	Forward Attachment Hoop			
1	94522	1	23/10/2016	Aft Attachment Hoop			
1	94527	1	04/12/2016	Placard			
1	69823	2	22/05/2014	Lugs			
1	49215	1	13/03/2014	Spacer			
1	49216	1	13/03/2014	Spacer			
1	84240	0	21/05/2014	Lid Brace Installation			
1	84255	2	13/03/2014	Handle Assembly			
1	84261	2	13/03/2014	Handle Bar Assembly			
1	84262	2	14/02/2014	Basket Handle Provisions Assembly			

	DCL REVISION CONTROL					
DCL	DCL REV.	REVISION	APPROVED	DESCRIPTION		
REV.	DATE	BY	BY	DESCRIPTION		
0	03/05/2006	Jeff Clarke	TCCA - PNR	Original issue.		
1	25/06/2017	Jeff Clarke	TCCA - Pacific	DCL format updated. New address. Minor changes.		
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APPROVAL: CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION PACIFIC REGION	9888A Mala Powell River, BC,	sign Ltd. aspina Road Canada, V8A 0G3 www.aerodesign.ca	
OCT 0 5 2017	Bell 206L Series Quick Release Cargo Ba		bly
APPKUVED	Document Control List Number	Revision	Sheet
CERTIFICATE NO. S400-48 ISSUE/0	DCL945-10	1	1 of 2

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT
REV.	NO.	REV.	DATE	DOCOMENT CONTENT
	FABRIC	ATION A	ND ASSEMBLY	DOCUMENTS (CONTINUED)
1	84263	0	14/02/2014	Lid Handle Provisions Assembly
1	84265	2	13/03/2014	Handle Lever
1	84267	1	13/03/2014	Handle Bracket
1	84272	1	13/03/2014	Bushing
1	36273	2	18/02/2014	Lid Bracket
1	36274	3	13/03/2014	Bushing
1	36275	4	04/10/2013	Bushing
1	36277	1	13/03/2014	Handle Bar
1	36278	4	01/12/2014	Spring
1	36280	3	13/03/2014	Lid Brace Assembly
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		DESI	GN COMPLIAN	NCE DOCUMENTS
0	ER945.01	0	14/10/2011	Engineering Report
0	FTP945.03	1	08/11/2011	Flight Test Plan and Report
0	ER842.01	0	14/10/2011	Engineering Report – New handle configuration
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Document Control List Number	Revision	Sheet
DCL945-10	1	2 of 2

(The Current Approval/Configuration Control List for Fabricated Parts, Assemblies and Other **Documents and a Complete Listing of the Applicable Design Compliance Documents)**

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT			
REV.	NO.	REV.	DATE	DOCOMENT CONTENT			
	FABRICATION AND ASSEMBLY DOCUMENTS						
1	94610	1	31/12/2016	Cargo Basket Assembly			
1	94611	1	01/01/2017	Basket Fabrication			
1	94612	1	01/01/2017	Lid Fabrication			
1	94620	1	04/12/2016	Ноор			
1	94621	1	06/11/2016	Brace			
1	94627	1	04/12/2016	Placard			
1	94520	1	04/12/2016	Ноор			
1	94521	1	19/11/2016	Forward Attachment Hoop			
1	94522	1	23/10/2016	Aft Attachment Hoop			
1	69823	2	22/05/2014	Lugs			
1	49215	1	13/03/2014	Spacer			
1	49216	1	13/03/2014	Spacer			
1	84240	0	21/05/2014	Lid Brace Installation			
1	84255	2	13/03/2014	Handle Assembly			
1	84261	2	13/03/2014	Handle Bar Assembly			

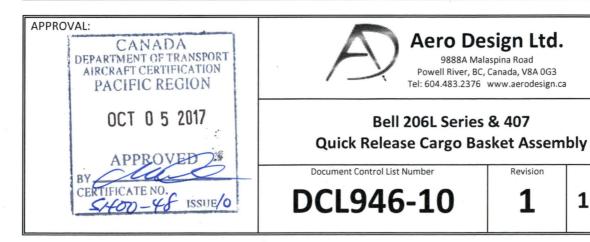
	DCL REVISION CONTROL					
DCL	DCL REV.	REVISION	APPROVED	DESCRIPTION		
REV.	DATE	BY	BY	DESCRIPTION		
0	03/05/2006	Jeff Clarke	TCCA - PNR	Original issue.		
1	25/06/2017	Jeff Clarke	TCCA - Pacific	DCL format updated. New address. Minor changes.		
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Revision

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DCL	DOCUMENT	DOC	DOC REV.	
REV.	NO.	REV.	DATE	DOCUMENT CONTENT
				DOCUMENTS (CONTINUED)
1	84262	2	14/02/2014	Basket Handle Provisions Assembly
1	84263	0	14/02/2014	Lid Handle Provisions Assembly
1	84265	2	13/03/2014	Handle Lever
1	84267	1	13/03/2014	Handle Bracket
1	84272	1	13/03/2014	Bushing
1	36273	2	18/02/2014	Lid Bracket
1	36274	3	13/03/2014	Bushing
1	36275	4	04/10/2013	Bushing
1	36277	1	13/03/2014	Handle Bar
1	36278	4	01/12/2014	Spring
1	36280	3	13/03/2014	Lid Brace Assembly
			*	
		DESI	GN COMPLIAN	ICE DOCUMENTS
0	ER946.01	0	14/10/2011	Engineering Report
0	FTP945.03	0	08/11/2011	Flight Test Plan and Report
0	ER842.01	0	14/10/2011	Engineering Report – New handle configuration
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Document Control List Number	Revision	Sheet
DCL946-10	1	2 of 2
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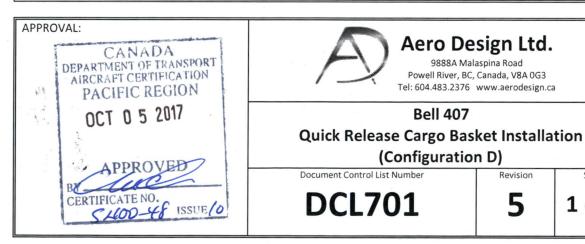
(Listing of Current Approved and Accepted Documents)

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT
REV.	NO.	REV.	DATE	DOGGINEIT GOITEIT
	DOC	CUMENTS	SITED ON TH	E APPROVAL DOCUMENT
5	FMS701.90	4	22/01/2017	Flight Manual Supplement
5	ICA698.90	4	10/02/2017	Instructions for Continued Airworthiness
	al .	ll.	NSTALLATION	DOCUMENTS
5	70101	5	21/11/2016	Quick Release Cargo Basket Installation
5	70102	1	21/11/2016	Quick Release Mounting Provisions Installation
2	SI698.91	0	19/09/2008	Service Instructions – Sliding Door Modification
,		FABRIC	ATION AND O	THER DOCUMENTS
5	DCL698-1	3	31/05/2017	Document Control List for Quick Release Cargo Basket Fabrication
5	DCL698-2	5	31/05/2017	Document Control List for Quick Release Mounting Beams Assembly

			CL REVISION	CONTROL
DCL	DCL REV.	REVISION	APPROVED	DECEDITION
REV.	DATE	BY	BY	DESCRIPTION
0	10/05/2006	Jeff Clarke	TCCA - PNR	Original issue.
1	28/09/2007	Jeff Clarke	TCCA - PNR	Upper basket attachment updated; eligible mounting beams added.
2	23/09/2008	Jeff Clarke	DAR 290M	SI for sliding door added.
3	02/12/2008	Jeff Clarke	TCCA - PNR	Provisions moved to new drawing 70102.
4	27/10/2011	Jeff Clarke	TCCA – PNR	Load limit increased to 300 lbs.
5	25/06/2017	Jeff Clarke	TCCA - Pacific	Format changed. New address.
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(Listing of Current Approved and Accepted Documents)

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT			
REV.	NO.	REV.	DATE	DOCUMENT CONTENT			
	DOCUMENTS SITED ON THE APPROVAL DOCUMENT						
4	FMS702.90	4	22/01/2017	Flight Manual Supplement			
4	ICA698.90	4	10/02/2017	Instructions for Continued Airworthiness			
			7				
		II	NSTALLATION	DOCUMENTS			
4	70201	5	04/12/2016	Quick Release Cargo Basket Installation			
4	70202	1	04/12/2016	Quick Release Mounting Provisions Installation			
		FABRIC	ATION AND O	THER DOCUMENTS			
4	DCL698-1	3	31/05/2017	Document Control List for Quick Release Cargo Basket Fabrication			
4	DCL698-2	5	31/05/2017	Document Control List for Quick Release Mounting Beams Assembly			

	DCL REVISION CONTROL						
DCL	DCL REV.	REVISION	APPROVED	DESCRIPTION			
REV.	DATE	BY	BY	DESCRIPTION			
0	10/05/2006	Jeff Clarke	TCCA - PNR	Original issue.			
1	28/09/2007	Jeff Clarke	TCCA - PNR	Upper basket attachment updated; eligible mounting beams added.			
2	02/12/2008	Jeff Clarke	TCCA – PNR	Provisions moved to new drawing 70202.			
3	27/10/2011	Jeff Clarke	TCCA – PNR	Load limit increased to 300 lbs.			
4	25/06/2017	Jeff Clarke	TCCA - Pacific	Format changed. New address.			
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Bell 206L Series

Quick Release Cargo Basket Installation

(Configuration C)

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Document Control List Number	Revision	Sheet			
DCL702	4	1 of 1			

(Listing of Current Approved and Accepted Documents)

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT			
REV.	NO.	REV.	DATE	DOCOMENT CONTENT			
	DOCUMENTS SITED ON THE APPROVAL DOCUMENT						
1	FMS701.90	4	22/01/2017	Flight Manual Supplement			
1	ICA698.90	4	10/02/2017	Instructions for Continued Airworthiness			
			7				
	INSTALLATION DOCUMENTS						
1	94501	1	04/12/2016	Quick Release Cargo Basket Installation			
1	70102	1	21/11/2016	Quick Release Mounting Provisions Installation			
0	SI698.91	0	19/09/2008	Service Instructions – Sliding Door Modification			
		3		, , , , , , , , , , , , , , , , , , , ,			
		FABRIC	ATION AND O	THER DOCUMENTS			
1	DCL945-10	1	25/06/2017	Document Control List for Quick Release Cargo Basket Fabrication			
1	DCL698-2	5	31/05/2017	Document Control List for Quick Release Mounting Beams Assembly			

	DCL REVISION CONTROL						
DCL	DCL REV.	REVISION	APPROVED	DESCRIPTION			
REV.	DATE	BY	BY	DESCRIPTION			
0	10/05/2006	Jeff Clarke	TCCA - PNR	Original issue.			
1	25/06/2017	Jeff Clarke	TCCA - Pacific	Format changed. New address.			
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APPROVAL: CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION PACIFIC REGION	Aero De 9888A Mala Powell River, BC, Tel: 604.483.2376	Canada, V8A 0G3	
OCT 0 5 2017	Bell 407 Quick Release Cargo Bas		tion
ARPROVED	(Configuratio	n F)	
BY CO	Document Control List Number	Revision	Sheet
CERTIFICATE NO. SHOD-YS ISSUE (0)	DCL945-1	1	1 of 1

(Listing of Current Approved and Accepted Documents)

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT			
REV.	NO.	REV.	DATE	DOCUMENT CONTENT			
	DOCUMENTS SITED ON THE APPROVAL DOCUMENT						
1	FMS702.90	4	22/01/2017	Flight Manual Supplement			
1	ICA698.90	4	10/02/2017	Instructions for Continued Airworthiness			
INSTALLATION DOCUMENTS							
1	94502	1	04/12/2016	Quick Release Cargo Basket Installation			
1	70202	1	04/12/2016	Quick Release Mounting Provisions Installation			
			9				
		FABRIC	ATION AND O	THER DOCUMENTS			
1	DCL945-10	1	25/06/2017	Document Control List for Quick Release Cargo Basket Fabrication			
1	DCL698-2	5	31/05/2017	Document Control List for Quick Release Mounting Beams Assembly			

	DCL REVISION CONTROL					
DCL	DCL REV.	REVISION	APPROVED	DESCRIPTION		
REV.	DATE	BY	BY	DESCRIPTION		
. 0	27/10/2011	Jeff Clarke	TCCA - PNR	Original issue.		
1	25/06/2017	Jeff Clarke	TCCA - Pacific	Format changed. New address.		
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APPROVAL:	
CANADA DEPARTMENT OF TRANSPO AIRCRAFT CERTIFICATIO PACIFIC REGION	
OCT 0 5 2017	
APPROVED	
CERTIFICATE NO.	6



Bell 206L Series

Quick Release Cargo Basket Installation
(Configuration E)

(Configuration E)					
Document Control List Number	Revision	Sheet			
DCL945-2	1	1 of 3			

(Listing of Current Approved and Accepted Documents)

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT			
REV.	NO.	REV.	DATE	DOCUMENT CONTENT			
	DOCUMENTS SITED ON THE APPROVAL DOCUMENT						
1	FMS701.90	4	22/01/2017	Flight Manual Supplement			
1	ICA698.90	4	10/02/2017	Instructions for Continued Airworthiness			
INSTALLATION DOCUMENTS							
1	94601	1	04/12/2016	Quick Release Cargo Basket Installation			
1	70102	1	21/11/2016	Quick Release Mounting Provisions Installation			
0	SI698.91	0	19/09/2008	Service Instructions – Sliding Door Modification			
	FABRICATION AND OTHER DOCUMENTS						
1	DCL946-10	1	25/06/2017	Document Control List for Quick Release Cargo Basket Fabrication			
1	DCL698-2	5	31/05/2017	Document Control List for Quick Release Mounting Beams Assembly			

	DCL REVISION CONTROL					
DCL	DCL REV.	REVISION	APPROVED	DESCRIPTION		
REV.	DATE	BY	BY	DESCRIPTION		
0	10/05/2006	Jeff Clarke	TCCA - PNR	Original issue.		
1	25/06/2017	Jeff Clarke	TCCA - Pacific	Format changed. New address.		
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CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION PACIFIC REGION	9888A Mal.	sign Ltd. aspina Road Canada, V8A 0G3 www.aerodesign.ca	
OCT 0 5 2017	Bell 407 Quick Release Cargo Bas (Configuration		tion
BY CERTIFICATE NO.	DCL946-1	Revision	1
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(Listing of Current Approved and Accepted Documents)

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT			
REV.	NO.	REV.	DATE	DOCUMENT CONTENT			
	DOCUMENTS SITED ON THE APPROVAL DOCUMENT						
1	FMS702.90	4	22/01/2017	Flight Manual Supplement			
1	ICA698.90	4	10/02/2017	Instructions for Continued Airworthiness			
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	INSTALLATION DOCUMENTS						
1	94602	1	04/12/2016	Quick Release Cargo Basket Installation			
1	70202	1	04/12/2016	Quick Release Mounting Provisions Installation			
	,	FABRIC	ATION AND O	THER DOCUMENTS			
1	DCL946-10	1	25/06/2017	Document Control List for Quick Release Cargo Basket Fabrication			
1	DCL698-2	5	31/05/2017	Document Control List for Quick Release Mounting Beams Assembly			
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DCL REVISION CONTROL							
DCL	DCL REV.	REVISION	APPROVED	DESCRIPTION			
REV.	DATE	BY	BY				
0	27/10/2011	Jeff Clarke	TCCA - PNR	Original issue.			
1	25/06/2017	Jeff Clarke	TCCA - Pacific	Format changed. New address.			
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APPROVAL: CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION PACIFIC REGION	Aero Design Ltd. 9888A Malaspina Road Powell River, BC, Canada, V8A 0G3 Tel: 604.483.2376 www.aerodesign.ca		
OCT 0 5 2017	Bell 206L Series Quick Release Cargo Basket Installation (Configuration F)		
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SHOO-YS ISSUE	DCL946-2	1	1 of 1

(The Current Approval/Configuration Control List for Fabricated Parts, Assemblies and Other Documents and a Complete Listing of the Applicable Design Compliance Documents)

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT
REV.	NO.	REV.	DATE	DOCOMENT CONTENT
		FABRICA	TION AND ASS	SEMBLY DOCUMENTS
3	69810	4	23/10/2016	Cargo Basket Assembly
3	69811	4	23/10/2016	Basket Fabrication
3	69812	4	11/07/2014	Lid Fabrication
3	69821	2	19/11/2016	Forward Attachment Hoop
3	69822	2	23/10/2016	Aft Attachment Hoop
3	69823	2	22/05/2014	Lugs
3	69827	3	23/10/2016	Placard
3	49210	2	22/05/2014	Ноор
3	49215	1	13/03/2014	Spacer
3	49216	1	13/03/2014	Spacer
3	84240	0	21/05/2014	Lid Brace Installation
3	84241	0	10/02/2017	Placard Replacement
3	84255	2	13/03/2014	Handle Assembly
3	84261	2	13/03/2014	Handle Bar Assembly

	DCL REVISION CONTROL					
DCL	DCL REV.	REVISION	APPROVED	DESCRIPTION		
REV.	DATE	BY	BY	DESCRIPTION		
0	03/05/2006	Jeff Clarke	TCCA - PNR	Original		
1	28/09/2007	Jeff Clarke	TCCA - PNR	Basket lug configuration updated; joggled aft hoop		
2	27/10/2011	Jeff Clarke	DAR 290M	Cargo load increased to 300 lbs; handle configuration updated; hinge attachment updated.		
3	31/05/2017	Jeff Clarke	TCCA - Pacific	DCL format updated. New address. Minor changes.		
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Aero Design Ltd.

9888A Malaspina Road Powell River, BC, Canada, V8A 0G3 Tel: 604.483.2376 www.aerodesign.ca

Bell 206L Series & 407 Quick Release Cargo Basket Assembly

Document Control List Number

DCL698-1

Revision

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DCL	DOCUMENT	DOC	DOC REV.	
REV.	NO.	REV.	DATE	DOCUMENT CONTENT
	FABRIC	ATION AI	ND ASSEMBLY	DOCUMENTS (CONTINUED)
3	84262	2	14/02/2014	Basket Handle Provisions Assembly
3	84263	0	14/02/2014	Lid Handle Provisions Assembly
3	84265	2	13/03/2014	Handle Lever
3	84267	1	13/03/2014	Handle Bracket
3	84272	1	13/03/2014	Bushing
3	36273	2	18/02/2014	Lid Bracket
3	36274	3	13/03/2014	Bushing
3	36275	4	04/10/2013	Bushing
3	36277	1	13/03/2014	Handle Bar
3	36278	4	01/12/2014	Spring
3	36280	3	13/03/2014	Lid Brace Assembly
		DESI	GN COMPLIAN	NCE DOCUMENTS
0	ER698.01	0	05/04/2006	Engineering Report
2	ER698.06	0	14/11/2011	Engineering Report – Cargo load increase
2	ER842.01	0	14/10/2011	Engineering Report – New handle configuration
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Document Control List Number	Revision	Sheet
DCL698-1	3	2 of 2

(Listing of Current Approved and Accepted Documents)

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT
REV.	NO.	REV.	DATE	DOCOMENT CONTENT
		FABRICA	TION AND ASS	SEMBLY DOCUMENTS
5	69830	5	19/11/2016	Forward Mounting Beam
5	69831	4	19/11/2016	Aft Mounting Beam
5	69878	0	19/11/2016	Spring
	×			
DESIGN COMPLIANCE DOCUMENTS				ICE DOCUMENTS
0	ER698.02	0	05/04/2006	Engineering Report
0	TP698.03	0	18/05/2006	Test Plan
2	ER698.04	0	09/11/2006	Engineering Report – 2 keyway modification
4	ER698.06	0	14/11/2011	Engineering Report – Cargo load increase
	,			

	DCL REVISION CONTROL					
DCL	DCL REV.	REVISION	APPROVED	DESCRIPTION		
REV.	DATE	BY	BY	DESCRIPTION		
0	03/05/2006	Jeff Clarke	TCCA - PNR	Original.		
1	21/09/2006	Jeff Clarke	DAR 290M	Beams modified to clear sliding door.		
2	28/09/2007	Jeff Clarke	TCCA - PNR	Beams modified for 2 keyway attachment.		
3	02/12/2008	Jeff Clarke	TCCA - PNR	Step installation and stowage keyways added.		
4	27/10/2011	Jeff Clarke	DAR 290M	Cargo load increase to 300 lbs.		
5	31/05/2017	Jeff Clarke	TCCA - Pacific	Format changed. New address.		





Aero Design Ltd.

9888A Malaspina Road Powell River, BC, Canada, V8A 0G3 Tel: 604.483.2376 www.aerodesign.ca

Bell 206L Series & 407
Quick Release Mounting Beams Assembly

DCL698-2

Revision

Sheet

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(Listing of Current Approved and Accepted Documents)

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT
REV.	NO.	REV.	DATE	DOCOMENT CONTENT
	DOC	UMENTS	SITED ON TH	E APPROVAL DOCUMENT
7	FMS492.01	3	22/01/2017	Flight Manual Supplement
7	ICA492.90	2	04/02/2017	Instructions for Continued Airworthiness
INSTALLATION DOCUMENTS				
6	49201	3	04/06/2007	Side Mounted Cargo Basket Installation
		FABRIC	ATION AND O	THER DOCUMENTS
6	DCL492-1	1	28/09/2007	Document Control List for Side Mounted Cargo Basket Assembly

	DCL REVISION CONTROL					
DCL	DCL REV.	REVISION	APPROVED	DESCRIPTION		
REV.	DATE	BY	BY	DESCRIPTION		
0	17/05/2002	Steven Fahey	TCCA - PNR	Original		
1	25/06/2002	Steven Fahey	TCCA - PNR	Flight Manual Supplement updated.		
2	12/07/2002	Steven Fahey	TCCA - PNR	Maintenance Instructions added.		
3				Not issued.		
4	20/07/2004	Steven Fahey	TCCA - PNR	New address. Basket assembly updated for interchangeability with Bell 407. Maintenance instructions updated.		
5	10/05/2006	Jeff Clarke	TCCA - PNR	Assembly documents moved to DCL492-1. Maintenance instructions changed to ICA.		
6	28/09/2007	Jeff Clarke	TCCA - PNR	Changes for pocked mounting beams.		
7	10/04/2017	Jeff Clarke	TCCA - Pacific	Format changed. New address.		
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(Listing of Current Approved and Accepted Documents)

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT	
REV.	NO.	REV.	DATE	DOCOMENT CONTENT	
	DOCUMENTS SITED ON THE APPROVAL DOCUMENT				
7	FMS493.01	1	22/01/2017	Flight Manual Supplement	
7	ICA493.90	1	09/02/2017	Instructions for Continued Airworthiness	
		II	ISTALLATION	DOCUMENTS	
7	49301	3	23/10/2016	External Attachment Provisions Installation	
		FABRIC	ATION AND O	THER DOCUMENTS	
7	DCL493-11	0	10/04/2017	Document Control List for External Attachment Provisions Fabrication	

DCL REVISION CONTROL					
DCL REV.	REVISION	APPROVED	DESCRIPTION		
DATE	BY	BY	DESCRIPTION		
19/05/2002	Steven Fahey	TCCA - PNR	Original		
21/06/2002	Steven Fahey	TCCA - PNR	Barrel nut hole re-oriented horizontally; flange thickness reduced.		
25/06/2002	Steven Fahey	TCCA - PNR	Reference test report added.		
19/07/2002	Steven Fahey	TCCA - PNR	Maintenance instructions added.		
03/06/2004	Steven Fahey	TCCA - PNR	New address.		
20/07/2004	Steven Fahey	TCCA - PNR	Maintenance instructions updated.		
10/05/2006	Jeff Clarke	TCCA - PNR	Manufacturing changes to accommodate CNC machining. Maintenance instructions changed to ICA.		
10/04/2017	Jeff Clarke	TCCA - Pacific	Renumbered from DCL493. Format changed. New address. Fabrication drawings and reports moved to DCL493-11.		
	DATE 19/05/2002 21/06/2002 25/06/2002 19/07/2002 03/06/2004 20/07/2004	DCL REV. REVISION DATE BY 19/05/2002 Steven Fahey 21/06/2002 Steven Fahey 25/06/2002 Steven Fahey 19/07/2002 Steven Fahey 03/06/2004 Steven Fahey 20/07/2004 Steven Fahey 10/05/2006 Jeff Clarke	DCL REV. REVISION APPROVED DATE BY BY 19/05/2002 Steven Fahey TCCA - PNR 21/06/2002 Steven Fahey TCCA - PNR 25/06/2002 Steven Fahey TCCA - PNR 19/07/2002 Steven Fahey TCCA - PNR 03/06/2004 Steven Fahey TCCA - PNR 20/07/2004 Steven Fahey TCCA - PNR 10/05/2006 Jeff Clarke TCCA - PNR		

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APPROVAL: CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION PACIFIC REGION	9888A Mal: Powell River, BC,	sign Ltd. aspina Road Canada, V8A 0G3 www.aerodesign.ca	
OCT 0 5 2017	Bell 206L Ser External Attachment Provi	sions Instal	lation
APPROVED.	(Configuration		
By like	Document Control List Number	Revision	Shee
SHOO-YF ISSUE TO	DCL493-1	7	1 o

(Listing of Current Approved and Accepted Documents)

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT		
REV.	NO.	REV.	DATE	DOCOMENT CONTENT		
	DOCUMENTS SITED ON THE APPROVAL DOCUMENT					
4	FMS606.01	3	22/01/2017	Flight Manual Supplement		
4	ICA492.90	2	04/02/2017	Instructions for Continued Airworthiness		
	INSTALLATION DOCUMENTS					
3	60601	2	21/06/2007	Side Mounted Cargo Basket Installation		
		FABRIC	ATION AND O	THER DOCUMENTS		
2	DCL492-1	1	28/09/2007	Document Control List for Side Mounted Cargo Basket Assembly		
0	ER606.01	0	30/03/2004	Engineering Report		
0	ER606.02	0	01/04/2004	Engineering Report – Load Test		

	DCL REVISION CONTROL					
DCL	DCL REV.	REVISION	APPROVED	DESCRIPTION		
REV.	DATE	BY	BY	DESCRIPTION		
0	31/05/2004	Jeff Clarke	TCCA - PNR	Original		
1	20/07/2004	Jeff Clarke	(check)	Maintenance instructions updated		
2	10/05/2006	Jeff Clarke	TCCA - PNR	External Attachment Provisions moved to DCL700. Maintenance Instructions replaced with ICA492.90. Fabrication documents moved to DCL492-1		
3	28/09/2007	Jeff Clarke	TCCA - PNR	Changes for pocked mounting beams.		
4	11/04/2017	Jeff Clarke	TCCA - Pacific	Format changed. New address.		



(Listing of Current Approved and Accepted Documents)

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT		
REV.	NO.	REV.	DATE	DOCUMENT CONTENT		
	DOCUMENTS SITED ON THE APPROVAL DOCUMENT					
2	FMS606.01	3	22/01/2017	Flight Manual Supplement		
2	ICA606.90	3	04/02/2017	Instructions for Continued Airworthiness		
		II	NSTALLATION	DOCUMENTS		
0	60603	0	18/08/2004	Side Mounted Cargo Basket Installation		
		FABRIC	ATION AND O	THER DOCUMENTS		
0	60630	0	11/08/2004	Cargo Basket Assembly		
0	60631	0	12/08/2004	Cargo Basket Body		
0	60632	0	12/08/2004	Cargo Basket Lid		
-	Continued					
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DCL REVISION CONTROL					
DCL	DCL REV.	REVISION	APPROVED	DESCRIPTION	
REV.	DATE	BY	BY	DESCRIPTION	
0	31/05/2004	Jeff Clarke	TCCA - PNR	Original	
1	20/07/2004	Jeff Clarke	DAR 290M	Alternate mounting beams added.	
2	11/04/2017	Jeff Clarke	TCCA - Pacific	Format changed. New address.	
- 2					
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APPROVAL: CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION PACIFIC REGION	Aero Design Ltd. 9888A Malaspina Road Powell River, BC, Canada, V8A 0G3 Tel: 604.483.2376 www.aerodesign.ca		
OCT 0 5 2017	Bell 407 Side-Mounted Cargo Bas	ket Installa	tion
APPROVED	Document Control List Number	Revision	Sheet
CERTIFICATE NO. SHOO-48 ISSUE/O	DCL606-1	2	1 of

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT
REV.	NO.	REV.	DATE	DOCUMENT CONTENT
	FABRIC	ATION AI	ND ASSEMBLY	DOCUMENTS (CONTINUED)
0	60640	0	12/08/2004	Basket Components - Rim
0	60641	0	12/08/2004	Basket Components – End Hoop Assembly
0	60642	0	12/08/2004	Basket Components – Attachment Hoop Assembly
0	60643	0	12/08/2004	Basket Components – Spine
0	60644	0	12/08/2004	Basket Components – Lug
0	60646	0	12/08/2004	Basket Components – Mounting Plate
0	60647	0	18/08/2004	Basket Components – Bushing
0	60648	0	12/08/2004	Basket Components – Hoop
0	60649	0	12/08/2004	Basket Components – Step Brace
0	49212	0	10/05/2002	Basket Components – Rim
0	49213	1	07/05/2004	Basket Components – Lid Brace
0	49215	0	10/05/2002	Basket Components – Lug
0	49216	0	10/05/2002	Basket Components – Lug
0	49218	1	04/05/2006	Placard
0	49221	2	14/10/2004	Support Beams
1	49222	1	08/12/2006	Support Beams (Steel)
0	36255	1	03/06/2004	Handle Assembly
0	36261	1	03/06/2004	Handle Bar Assembly
0	36262	1	03/06/2004	Handle Bracket Assembly
0	36271	0	17/05/2002	Handle Lever
0	36272	0	17/05/2002	Basket Bracket
0	36273	0	17/05/2002	Lid Bracket
0	36274	0	17/05/2002	Bushing
0	36275	1	03/06/2004	Bushing
0	36276	0	17/05/2002	Spring Hook
0	36277	0	17/05/2002	Handle Bar
0	36278	1	13/04/2004	Spring
0	36280	2	28/04/2004	Brace
				,
		DESI	GN COMPLIAN	NCE DOCUMENTS
0	ER606.01	0	30/03/2004	Engineering Report – Basket Installation
0	ER606.02	0	01/04/2004	Engineering Report – Load Test
0	ER606.03	0	18/01/2005	Engineering Report – High Mount Basket
0	TR606.04	0	18/01/2005	Test Report – Beam Load Test
0	TR606.05	0	18/01/2005	Test Report – Basket Assembly Load Test
0	ER492.01	0	09/05/2002	Engineering Report – Basket Installation
0	ER492.02	0	09/05/2002	Engineering Report – Basket Load Tests
1	ER492.03	0	15/05/2006	Engineering Report – Steel Beams
0	ER493.01	1	09/05/2002	Engineering Report – External Attachment Provisions
0	ER493.03	0	05/06/2002	Test Report – Load Test External Attachment Provisions
0	TR362.02	2	04/12/2000	Test Report – Basket Assembly Load Test
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Document Control List Number	Revision	Sheet
DCL606-1	2	2 of 2

(Listing of Current Approved and Accepted Documents)

DCL	DOCUMENT	DOC	DOC REV.	
REV.	NO.	REV.	DATE	DOCUMENT CONTENT
	DOC	UMENTS	SITED ON TH	E APPROVAL DOCUMENT
5	ICA623.91	2	11/02/2017	Instructions for Continued Airworthiness
		II.	NSTALLATION	DOCUMENTS
5	62302	2	01/10/2016	Auxiliary Step Installation
				,
		FABRIC	ATION AND O	THER DOCUMENTS
5	62340	1	25/08/2014	Auxiliary Step Fabrication
2	ER623.01	1	07/06/2010	Engineering Report
5	MCR62340-1	0	29/08/2014	Minor Change Report
				· ·

	DCL REVISION CONTROL					
DCL	DCL REV.	REVISION	APPROVED	DESCRIPTION		
REV.	DATE	BY	BY	DESCRIPTION		
0	13/01/2005	Jeff Clarke	TCCA - PNR	Original.		
1	21/09/2006	Jeff Clarke	DAR 290M	Sided assembly changed to single assembly.		
2	05/05/2010	Jeff Clarke	DAR 290M	New aluminum/stainless steel assembly added.		
3	17/11/2010	Jeff Clarke	DAR 290M	ICA added.		
4	11/04/2017	Jeff Clarke	TCCA - PNR	Bell 206B added. Original configuration removed.		
5	31/05/2017	Jeff Clarke	TCCA - Pacific	Format changed. New address.		

APPROVAL: CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION PACIFIC REGION	Aero Design Ltd. 9888A Malaspina Road Powell River, BC, Canada, V8A 0G3 Tel: 604.483.2376 www.aerodesign.ca				
OCT 0 5 2017	Bell 206B, 206L Series, 407 Auxiliary Step Installation				
APPROVED	Document Control List Number	Revision	Sheet		
CERTIFICATE NO. SHOD—HF ISSUE/O	DCL623	5	1 of 1		

(Listing of Current Approved and Accepted Documents)

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT			
REV.	NO.	REV.	DATE	DOCOMENT CONTENT			
	DOCUMENTS SITED ON THE APPROVAL DOCUMENT						
2	FMS700.91	1	22/01/2017	Flight Manual Supplement			
2	ICA700.90	1	09/02/2017	Instructions for Continued Airworthiness			
				No.			
		II	NSTALLATION	DOCUMENTS			
2	60602	1	23/10/2016	External Attachment Provisions Installation			
	7						
		FABRIC	ATION AND O	THER DOCUMENTS			
2	DCL700-11	0	25/06/2017	Document Control List for External Attachment Provisions Fabrication			
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	DCL REVISION CONTROL					
DCL	DCL REV.	REVISION	APPROVED	DESCRIPTION		
REV.	DATE	BY	BY	DESCRIPTION		
0	10/05/2006	Jeff Clarke	TCCA - PNR	Original issue.		
1	28/09/2007	Jeff Clarke	TCCA - PNR	Angle of aft block updated.		
2	10/04/2017	Jeff Clarke	TCCA - Pacific	Renumbered from DCL700. Format changed. New address. Fabrication drawings and reports moved to DCL700-11.		

APPROVAL: CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION PACIFIC REGION	9888A Mal. Powell River, BC,	esign Ltd. aspina Road Canada, V8A 0G3 www.aerodesign.ca	1
OCT 0 5 2017	Bell 407 External Attachment Provi (Configuration		lation
CERTIFICATE NO.	Document Control List Number	Revision	She
SHOO-45 ISSUE/O	DCL700-1		10

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(The Current Approval/Configuration Control List for Fabricated Parts, Assemblies and Other Documents and a Complete Listing of the Applicable Design Compliance Documents)

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT		
REV.	NO.	REV.	DATE	DOCUMENT CONTENT		
	INSTALLATION DOCUMENTS					
8	70408	1	29/05/2014	Installation, Hangar Wheel		
		FABRICAT	TION AND ASS	SEMBLY DOCUMENTS		
4	70401	1	04/12/2008	Open Forward End Modification (Bell 206L/407 Fixed and McDonnell Douglas MD600N Quick Release Only)		
8	70402	2	29/05/2014	Lid Door Modification		
8	70403	5	29/05/2014	Auxiliary Latch Modification		
11	70404	2	01/01/2017 Open Forward End Modification (Bell 206L/407 Quick Release Only)			
8	70405	4	29/05/2014	Lid Step Modification		

	DCL REVISION CONTROL						
DCL	DCL REV.	REVISION	APPROVED	DESCRIPTION			
REV.	DATE	BY	BY	DESCRIPTION			
0	03/05/2006	Jeff Clarke	TCCA - PNR	Original issue.			
1	21/09/2006	Jeff Clarke	DAR 290M	Add 70404 and 70405			
2	19/03/2008	Jeff Clarke	TCCA - PNR	Update eligibilities. Front end cutout modified 70404.			
3	31/07/2008	Jeff Clarke	TCCA - PNR	Add EC135 front end cutout drawing 70407.			
4	22/12/2008	Jeff Clarke	TCCA - PNR	Add MD600N to 70401.			
5	22/12/2008	Jeff Clarke	TCCA - PNR	Add Bell 206B to 70406.			
6	29/04/2010	Jeff Clarke	DAR 290M	Add hangar wheel.			
7	27/10/2011	Jeff Clarke	TCCA - PNR	Update eligibilities. Add gas spring modification.			
8	02/06/2014	Jeff Clarke	TCCA - PNR	New address. Hangar wheel updated. Update eligibility requirements on 70402/03/05.			
9	11/07/2014	Jeff Clarke	TCCA - PNR	Add long/extra large configuration to 70406.			
10	18/12/2014	Jeff Clarke	TCCA - PNR	Add Bell 205/212/412 to 70407.			
11	25/06/2017	Jeff Clarke	TCCA - Pacific	Format changed. 206L/407 drawings updated.			
		®					



NO. REV. DATE FABRICATION AND ASSEMBLY DOCUMENTS (CONTINUED) Open Forward End Modification (Eurocopter AS350/AS355 and Bell 2068 Quick Release Only) Open Forward End Modification (Eurocopter EC135 Quick Release and Bell 205/212/412 Quick Release Only) Open Forward End Modification (Eurocopter EC135 Quick Release and Bell 205/212/412 Quick Release Only) Open Forward End Modification (Eurocopter EC135 Quick Release Only) Open Forward End Modification (Bell 2061/407 Large Quick Release Only) Open Forward End Modification (Bell 2061/407 Large Quick Release Only) Open Forward End Modification (Bell 2061/407 Large Quick Release Only) Open Forward End Modification Open Forward End Modification (Bell 2061/407 Large Quick Release Only) Open Forward End Modification Open Forward End Modification (Bell 2061/407 Large Quick Release Only) Open Forward End Modification Open F	DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT	
9 70406 3 14/07/2014 Curocopter AS350/AS355 and Bell 206B Quick Release Only) 10 70407 1 16/12/2014 (Eurocopter EC135 Quick Release and Bell 205/212/412 Quick Release Only) 11 70411 1 01/01/2017 Open Forward End Modification (Eurocopter EC135 Quick Release and Bell 205/212/412 Quick Release Only) 7 70412 0 12/10/2011 Gas Spring Modification (Bell 206L/407 Large Quick Release Only) 7 70422 0 12/10/2011 Gas Spring Provisions Modification 11 70428 2 25/06/2017 Assembly, Hangar Wheel 8 70438 1 29/05/2014 Parts, Hangar Wheel DESIGN COMPLIANCE DOCUMENTS	REV.	NO.	REV.	DATE	,	
9 70406 3 14/07/2014 (Eurocopter AS350/AS355 and Bell 206B Quick Release Only) 10 70407 1 16/12/2014 (Eurocopter EC135 Quick Release and Bell 205/212/412 Quick Release Only) 11 70411 1 01/01/2017 Open Forward End Modification (Bell 206L/407 Large Quick Release Only) 7 70412 0 12/10/2011 Gas Spring Modification 7 70422 0 12/10/2011 Gas Spring Provisions Modification 11 70428 2 25/06/2017 Assembly, Hangar Wheel 8 70438 1 29/05/2014 Parts, Hangar Wheel DESIGN COMPLIANCE DOCUMENTS	12-	FABRIC	ATION A	ND ASSEMBLY		
1 16/12/2014 (Eurocopter EC135 Quick Release and Bell 205/212/412 Quick Release Only) 11 70411 1 01/01/2017 Open Forward End Modification (Bell 206L/407 Large Quick Release Only) 7 70412 0 12/10/2011 Gas Spring Modification 7 70422 0 12/10/2011 Gas Spring Provisions Modification 11 70428 2 25/06/2017 Assembly, Hangar Wheel 8 70438 1 29/05/2014 Parts, Hangar Wheel DESIGN COMPLIANCE DOCUMENTS	9	70406	3	14/07/2014	(Eurocopter AS350/AS355 and Bell 206B Quick Release	
11 70411 1 01/01/2017 (Bell 206L/407 Large Quick Release Only) 7 70412 0 12/10/2011 Gas Spring Modification 7 70422 0 12/10/2011 Gas Spring Provisions Modification 11 70428 2 25/06/2017 Assembly, Hangar Wheel 8 70438 1 29/05/2014 Parts, Hangar Wheel DESIGN COMPLIANCE DOCUMENTS	10	70407	1	16/12/2014	Open Forward End Modification (Eurocopter EC135 Quick Release and Bell 205/212/412 Quick Release Only)	
7 70422 0 12/10/2011 Gas Spring Provisions Modification 11 70428 2 25/06/2017 Assembly, Hangar Wheel 8 70438 1 29/05/2014 Parts, Hangar Wheel DESIGN COMPLIANCE DOCUMENTS	11	70411	1	01/01/2017	,	
11 70428 2 25/06/2017 Assembly, Hangar Wheel 8 70438 1 29/05/2014 Parts, Hangar Wheel DESIGN COMPLIANCE DOCUMENTS	7	70412	0	12/10/2011	Gas Spring Modification	
8 70438 1 29/05/2014 Parts, Hangar Wheel DESIGN COMPLIANCE DOCUMENTS	7	70422	0	12/10/2011	Gas Spring Provisions Modification	
DESIGN COMPLIANCE DOCUMENTS	11	70428	2	25/06/2017	Assembly, Hangar Wheel	
	8	70438	1	29/05/2014	Parts, Hangar Wheel	
			DESI	GN COMPLIAN	NCE DOCUMENTS	
	0	FR704 02				

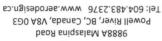
Document Control List Number	Revision	Sheet
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(Listing of Current Approved and Accepted Documents)

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Document Control List for Quick Release Cargo Basket Fabrication	75/06/2017	τ	DCF199211	7			
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Service Instructions – Sliding Door Modification	19/09/2008	0	16.863I2	0			
Quick Release Cargo Basket Installation	21/08/2016	Ţ	10992	7			
DOCUMENTS	NOITALLATION	VI .					
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Flight Manual Supplement – Bell 206L Series	22/01/2017	τ	FMS766.92	7			
Flight Manual Supplement – Bell 407	72/01/2017	τ	FMS766.91	7			
Instructions for Continued Airworthiness	10/05/5017	τ	06.997A⊃I	7			
Е ВРРКОУА ГОСОМЕЙТ	DOCUMENTS SITED ON THE APPROVAL DOCUMENT						
	3TAQ	REV.	ON.	REV.			
DOCUMENT CONTENT	DOC BEV.	DOC	DOCUMENT	DCL			

DCL REVISION APPROVED						
DESCRIPTION	АРРКОVED Y8	BA KENIZION	DCL REV.	DCL REV.		
Original issue.	TCCA - PNR	Jeff Clarke	10/05/2006	0		
SI for sliding door added.	M062 AAQ	Jeff Clarke	8002/60/22	τ		
Format changed. New address.	TCCA - Pacific	Jeff Clarke	7102/90/52	7		
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Aero Design Ltd.



High Side Mounted Cargo Basket Installation Bell 206L Series & 407

(407 Configuration E / 206L Configuration D)

Document Control List Number

1 of 1

DCL766-1

CERTIFICATE NO. OC1 0 2 5017 PACIFIC REGION DEPARTMENT OF TRANSPORT DEPARTMENT OF TRANSPORT CANADA :JAVOЯ99A

(Listing of Current Approved and Accepted Documents)

DCL	DOCUMENT	DOC	DOC REV.	DOCUMENT CONTENT
REV.	NO.	REV.	DATE	DOCUMENT CONTENT
	DOC	UMENTS	SITED ON TH	E APPROVAL DOCUMENT
1	ICA800.90	2	13/01/2015	Instructions for Continued Airworthiness
1	FMS701.90	4	22/01/2017	Bell 407 Flight Manual Supplement
1	FMS702.90	4	22/01/2017	Bell 206L Flight Manual Supplement
		II	NSTALLATION	DOCUMENTS
1	80002	1	19/11/2016	Quick Release Step Installation
		FABRIC	ATION AND O	THER DOCUMENTS
1	DCL800-12	1	31/05/2017	Document Control List for Quick Release Step Fabrication

	DCL REVISION CONTROL						
DCL	DCL REV.	REVISION	APPROVED	DESCRIPTION			
REV.	DATE	BY	BY	DESCRIPTION			
0	02/12/2008	Jeff Clarke	TCCA - PNR	Original.			
1	31/05/2017	Jeff Clarke	TCCA - Pacific	Format changed. New address.			
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APPROVAL: CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION PACIFIC REGION	9888A Mala	sign Ltd. aspina Road Canada, V8A 0G3 www.aerodesign.ca	ı
OCT 0 5 2017	Bell 206L Series Quick Release Step I		
APPROVI	Document Control List Number	Revision	Sheet
CERTIFICATE NO. SHOP-YS ISSUE (0)	DCL800-2	1	1 of 3

Aero Design Ltd.



9888A Malaspina Road Powell River, BC, V8A 0G3 Phone: 604-483-2376 Fax: 604-483-2372 www.aerodesign.ca

BELL 206L SERIES

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT for the INSTALLATION of the AERO DESIGN CARGO BASKET

TCCA Supplemental Type Certificate No. <u>SH00-48</u>
FAA Supplemental Type Certificate No. <u>SR02253NY</u>
EASA Supplemental Type Certificate No. _____

Sections I, II, III and IV of this document comprise the Transport Canada Approved sections of this Flight Manual Supplement. Compliance with Section I, Limitations, is mandatory.

Section V and any subsequent sections if present are Unapproved and are provided for information only.

The information and data contained in this Flight Manual Supplement supersede or supplement that contained in the basic Approved Flight Manual for the Bell 206L when fitted with the Cargo Basket. For limitations, procedures and performance not listed in this Flight Manual Supplement, refer to the Approved Flight Manual and other approved Flight Manual Supplements.

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
PACIFIC REGION

OCT 0 2 2017

APPROVED
BY MANAGE CERTIFICATE NO.
SHOW 48 ISSUE/C

Revision 3 22 January 2017 Page 1
TRANSPORT CANADA APPROVED

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1	Limitations	3
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Ш	Emergency Procedures	3
IV	Performance	3
V	Weight and Balance	4

Record of Revisions

Revision	Issue Date	Pages Revised	Date Inserted	Ву
1	25 June 2002	1-4	(incorporated)	
2	28 Sept 2007	2, 4	(incorporated)	
3	22 Jan 2017	1, 2		

I LIMITATIONS

- The maximum load in the AERO Design Ltd. Cargo Basket it 200 Lb. (90,9 kg).
- Flight operations limited to VFR conditions with AERO Design Ltd. Cargo Basket installed.

II NORMAL PROCEDURES

- 1. Pre-flight inspections:
 - Ensure that all cargo stored in the cargo basket does not extend outside the basket, is properly tied down and secured for flight.
 - b) Ensure that the lid of cargo basket is closed and secured.

III EMERGENCY PROCEDURES

No change from basic Approved Flight Manual.

CAUTION:

The rotorcraft glide angle is steeper than that of the basic helicopter when the AERO Design Ltd. Cargo Basket is installed.

IV PERFORMANCE

Climb performance may be reduced by up to 350 fpm.

Cruise speeds are reduced by approximately 10 mph.

V WEIGHT AND BALANCE

English Units

		Longitudinal		Longitudinal Lateral		eral
Item	Weight	Arm	Moment	Arm	Moment	
	(Lb)	(in)	(in*Lb)	(in)	(in*Lb)	
Cargo Basket Installation	58.6	114.1	6684	33.6	1971	
Cargo	200 (MAX)	114.1	22820	38.5	7700	

Metric Units

		Longitudinal		Longitudinal Lateral		eral
Item	Weight	Arm	Moment	Arm	Moment	
	(Kg)	(mm)	(mm*Kg)	(mm)	(mm*Kg)	
Cargo Basket Installation	26,5	2898	76 843	853	22 630	
Cargo	90,9 (MAX)	2898	263 467	978	88 900	

Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

CAUTION:

It is possible to exceed lateral CG limits in some configurations. For example, with one pilot, no passengers, fuel tanks half empty, and the AERO Design Ltd. cargo basket loaded with 200 pounds of cargo, the Lateral CG of the rotorcraft could be out of limits.

Aero Design Ltd.



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BELL 206L SERIES

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT for the INSTALLATION of EXTERNAL ATTACHMENT PROVISIONS

TCCA Supplemental Type Certificate No. <u>SH00-48</u>
FAA Supplemental Type Certificate No. <u>SR02253NY</u>
EASA Supplemental Type Certificate No. _____

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Section V and any subsequent sections if present are Unapproved and are provided for information only.

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TRANSPORT CANADA APPROVED

I LIMITATIONS

1. Attachment of any equipment to the External Attachment Provisions requires Transport Canada Approval.

II NORMAL PROCEDURES

1. No change from basic Approved Flight Manual.

III EMERGENCY PROCEDURES

1. No change from basic Approved Flight Manual.

IV PERFORMANCE

1. No change from basic Approved Flight Manual.

Aero Design Ltd.



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BELL 407

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT for the INSTALLATION of the AERO DESIGN CARGO BASKET

TCCA Supplemental Type Certificate No. <u>SH00-48</u>
FAA Supplemental Type Certificate No. <u>SR02253NY</u>
EASA Supplemental Type Certificate No. _____

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The information and data contained in this Flight Manual Supplement supersede or supplement that contained in the basic Approved Flight Manual for the Bell 407 when fitted with the Cargo Basket Installation. For limitations, procedures and performance not listed in this Flight Manual Supplement, refer to the Approved Flight Manual and other approved Flight Manual Supplements.

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1	25 June 2002	1-4	(incorporated)	
2	28 Sept 2007	2, 6	(incorporated)	
3	22 Jan 2017	1, 2		

I LIMITATIONS

- The maximum load in the AERO Design Ltd. Cargo Basket is 200 Lb. (90.9 kg).
- Flight operations limited to VFR conditions with AERO Design Ltd. Cargo Basket installed.
- 3. Maximum lateral or rearward speed limited to 25 KIAS.
- Maximum winds from aft quadrants limited to 25 KIAS for takeoff, landing or hover flight.
- 5. V_{NE} is 140 KIAS except when the V_{NE} of the basic rotorcraft is more restrictive, in which case the lower V_{NE} applies.
- High Basket configuration No occupants in the passenger cabin unless helicopter is equipped with approved push out emergency windows or sliding door on the basket side of the helicopter.

II NORMAL PROCEDURES

- 1. Pre-flight inspections:
 - Ensure that all cargo stored in the cargo basket does not extend outside the basket, is properly tied down and secured for flight.
 - b) Ensure that the lid of cargo basket is closed and secured.

CAUTION

It is possible to exceed the lateral centre of gravity limits of the rotorcraft under some loading conditions. Pilots must ensure that lateral C of G is within limits when loading the basket.

III EMERGENCY PROCEDURES

No change from basic Approved Flight Manual.

CAUTION:

The rotorcraft glide angle is steeper than that of the basic helicopter when the AERO Design Ltd. Cargo Basket is installed.

IV PERFORMANCE

Climb performance may be reduced by up to 200 fpm.

Cruise speeds are reduced by approximately 10 kts. (11 mph).

V WEIGHT AND BALANCE

1. The following weight and balance are for the low mounted cargo basket configuration, installed in accordance with drawing 60601.

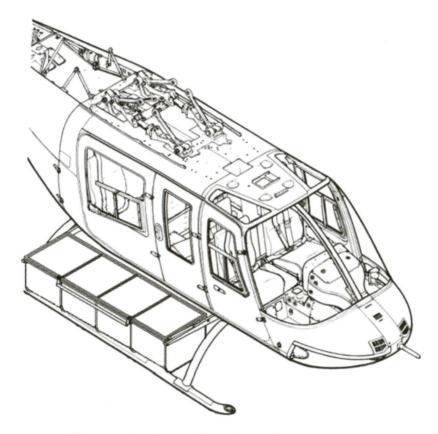


Figure 1 - Low Mounted Cargo Basket Configuration

Low Mounted Cargo Basket Configuration

English Units

		Longitudinal		Lat	eral
Item	Weight	Arm	Moment	Arm	Moment
	(Lb)	(in)	(in*Lb)	(in)	(in*Lb)
Cargo Basket Installation	58.6	114.1	6684	33.6	1971
Cargo	200 (MAX)	114.1	22820	38.5	7700

Metric Units

		Longitudinal		Longitudinal Lateral		eral
Item	Weight	Arm	Moment	Arm	Moment	
	(Kg)	(mm)	(mm*Kg)	(mm)	(mm*Kg)	
Cargo Basket Installation	26,5	2898	76 843	853	22 630	
Cargo	90.9 (MAX)	2898	263 467	978	88 900	

Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

CAUTION:

It is possible to exceed lateral CG limits in some configurations. For example, with one pilot, no passengers, fuel tanks half empty, and the AERO Design Ltd. cargo basket loaded with 200 pounds of cargo, the Lateral CG of the rotorcraft could be out of limits.

2. The following weight and balance are for the high mounted cargo basket configuration, installed in accordance with drawing 60603.

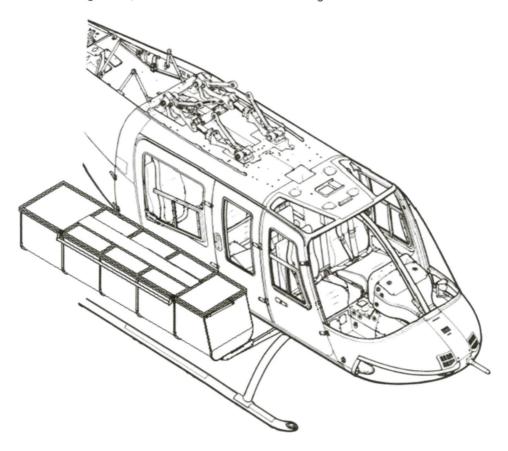


Figure 2 - High Mounted Cargo Basket Installation

High Mounted Cargo Basket Configuration

English Units

		Longitudinal		Longitudinal Lateral		eral
Item	Weight	Arm	Moment	Arm	Moment	
	(Lb)	(in)	(in*Lb)	(in)	(in*Lb)	
Cargo Basket Installation	86.5	121.0	10469	37.7	3258	
Cargo	200 (MAX)	124.8	24960	46.8	9350	

Metric Units

		Longitudinal		Longitudinal Lateral		eral
Item	Weight	Arm	Moment	Arm	Moment	
	(Kg)	(mm)	(mm*Kg)	(mm)	(mm*Kg)	
Cargo Basket Installation	39.1	3073	120 154	958	37 458	
Cargo	90.9 (MAX)	3170	288 153	1189	108 080	

Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

CAUTION:

It is possible to exceed lateral CG limits in some configurations. For example, with one pilot, no passengers, fuel tanks half empty, and the AERO Design Ltd. cargo basket loaded with 200 pounds of cargo, the Lateral CG of the rotorcraft could be out of limits.

Aero Design Ltd.



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BELL 407

FOR THE FOR THE PROVISIONS ROTORCRAFT FLIGHT MANUAL SUPPLEMENT for the INSTALLATION of EXTERNAL ATTACHMENT PROVISIONS

TCCA Supplemental Type Certificate No. <u>SH00-48</u>
FAA Supplemental Type Certificate No. <u>SR02253NY</u>
EASA Supplemental Type Certificate No. _____

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Revision 1 22 January 2017

TRANSPORT CANADA APPROVED

I LIMITATIONS

1. Attachment of any equipment to the External Attachment Provisions requires Transport Canada Approval.

II NORMAL PROCEDURES

1. No change from basic Approved Flight Manual.

III EMERGENCY PROCEDURES

1. No change from basic Approved Flight Manual.

IV PERFORMANCE

1. No change from basic Approved Flight Manual.

Aero Design Ltd.



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BELL 407

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT for the INSTALLATION of the AERO DESIGN QUICK RELEASE CARGO BASKET AND/OR QUICK RELEASE STEP

TCCA Supplemental Type Certificate No. <u>SH00-48</u>
FAA Supplemental Type Certificate No. <u>SR02253NY</u>
EASA Supplemental Type Certificate No. _____

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Section V and any subsequent sections if present are Unapproved and are provided for information only.

The information and data contained in this Flight Manual Supplement supersede or supplement that contained in the basic Approved Flight Manual for the Bell 407 when fitted with the Quick Release Cargo Basket or Quick Release Step Installation. For limitations, procedures and performance not listed in this Flight Manual Supplement, refer to the Approved Flight Manual and other approved Flight Manual Supplements.

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Record of Revisions

Revision	Issue Date	Pages Revised	Date Inserted	Ву
0	05 May, 2006	None	(incorporated)	
1	09 Nov, 2006	2, 6	(incorporated)	
2	17 July, 2008	All	(incorporated)	
3	26 Oct, 2011	All	(incorporated)	
4	22 Jan 2017	1, 2		,

I LIMITATIONS

- The maximum load in the AERO Design Ltd. Quick Release Cargo Basket is 300 lb. (136 kg).
- Flight operations limited to VFR conditions with AERO Design Ltd. Cargo Basket installed.
- 3. Maximum lateral or rearward speed limited to 25 KIAS.
- Maximum winds from aft quadrants limited to 25 KIAS for takeoff, landing or hover flight.
- 5. V_{NE} is 140 KIAS except when the V_{NE} of the basic rotorcraft is more restrictive, in which case the lower V_{NE} applies.
- 6. Quick Release Step may be installed when the basket is removed.

II NORMAL PROCEDURES

- 1. Pre-flight inspections:
 - Ensure that all cargo stored in the cargo basket is properly tied down and secured for flight.
 - b) Ensure that the lid of cargo basket is closed and secured.
 - Ensure the basket is locked in postion on the beams. Pull up on the forward and aft end of the basket to check.
 - Ensure the step is locked in position on the beams. Pull up on the forward and aft end of the step to check.

CAUTION

It is possible to exceed the lateral centre of gravity limits of the rotorcraft under some loading conditions. Pilots must ensure that lateral C of G is within limits when loading the basket.

III EMERGENCY PROCEDURES

No change from basic Approved Flight Manual.

CAUTION:

The rotorcraft glide angle is steeper than that of the basic helicopter when the AERO Design Ltd. Cargo Basket is installed.

Aero Design Ltd.

FMS701.90

IV PERFORMANCE

With the cargo basket installed:

Climb performance is reduced by up to 200 fpm.

Cruise performance and range are reduced by 10 percent.

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V WEIGHT AND BALANCE

 The following weight and balance is for the low mounted quick release cargo basket configuration, installed in accordance with drawing 70101.

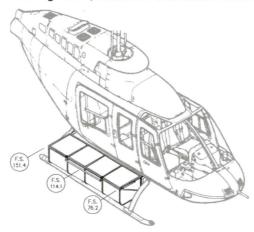


Figure 1 – Quick Release Cargo Basket (70101 Configuration)

Low Mounted Quick Release Cargo Basket Configuration

Item	Weight		ngitudinal	Lateral	
10111	Woight	Arm	Moment	Arm	Moment
Basket	45.0 lb	114.1 in	5134 in*lb	38.5 in	1733 in*lb
Only ¹	20.4 kg	2898 mm	59 122 mm*kg	978 mm	19 949 mm*kg
Cargo ²	300 lb	114.1 in	34 230 in*lb	38.5 in	11 550 in*lb
(MAX)	136 kg	2898 mm	393 413 mm*kg	978 mm	132 747 mm*kg

¹ Weight and balance is for Cargo Basket only. Mounting beams and attachment provisions are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

CAUTION:

It is possible to exceed lateral CG limits in some configurations.

Revision 3 26 October, 2011

² Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

The following weight and balance is for the quick release step configuration, installed in accordance with drawing 80002.

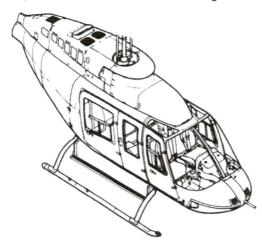


Figure 2 - Quick Release Step Configuration

Quick Release Step Configuration

Item	Weight	Loi	ngitudinal	Lateral	
10111	Wolgin	Arm	Moment	Arm	Moment
Step	8.2 lb	114.1 in	935.6 in*lb	29.3 in	239.9 in*lb
Only ¹	3.7 kg	2898 mm	10 723 mm*kg	744 mm	2 754 mm*kg

Quick Release Step Configuration (Stowed Position)

Item	Weight	Loi	Longitudinal		Lateral
rtom	Wolgin	Arm	Moment	Arm	Moment
Step	8.2 lb	114.1 in	935.6 in*lb	23.7 in	194.3 in*lb
Only ¹	3.7 kg	2898 mm	10 723 mm*kg	602 mm	2 227 mm*kg

¹ Weight and balance is for Step only. Mounting beams and attachment provisions are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

The following weight and balance is for the large low mounted quick release cargo basket configuration, installed in accordance with drawing 94501.

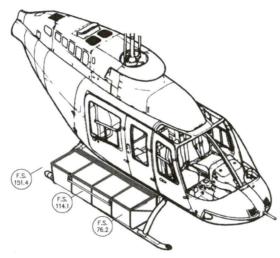


Figure 3 - Quick Release Cargo Basket (94501 Configuration)

Large Low Mounted Quick Release Cargo Basket Configuration

Item	Weight		ngitudinal	Lateral		
1.0111	Worging	Arm	Moment	Arm	Moment	
Basket	47.8 lb	114.1 in	5 454 in*lb	39.6 in	1 893 in*lb	
Only ¹	21.6 kg	2898 mm	62 684 mm*kg	1006 mm	21 755 mm*kg	
Cargo ²	300 lb	114.1 in	34 230 in*lb	39.6 in	11 880 in*lb	
(MAX)	136 kg	2898 mm	393 413 mm*kg	1006 mm	136 539 mm*kg	

¹ Weight and balance is for Cargo Basket only. Mounting beams and attachment provisions are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

CAUTION:

It is possible to exceed lateral CG limits in some configurations.

² Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

 The following weight and balance is for the large, long, low mounted quick release cargo basket configuration, installed in accordance with drawing 94601.

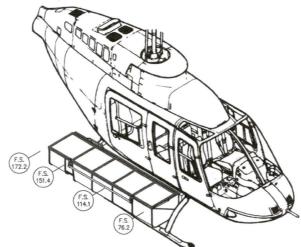


Figure 4 - Quick Release Cargo Basket (94601 Configuration)

Large Long Low Mounted Quick Release Cargo Basket Configuration

Item	Weight	Longitudinal		Lateral	
110111	Worgin	Arm	Moment	Arm	Moment
Basket	63.0 lb	125.0 in	7 875 in*lb	39.6 in	2 495 in*lb
Only ¹	28.5 kg	3175 mm	90 509 mm*kg	1006 mm	28 673 mm*kg
Cargo ²	300 lb	114.1 in	34 230 in*lb	39.6 in	11 880 in*lb
(MAX)	136 kg	2898 mm	393 413 mm*kg	1006 mm	136 539 mm*kg

¹ Weight and balance is for Cargo Basket only. Mounting beams and attachment provisions are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

CAUTION:

It is possible to exceed lateral CG limits in some configurations.

Revision 3 26 October, 2011

² Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

VI INSTALLATION / REMOVAL INSTRUCTIONS

The Quick Release Mounting Provisions are installed in accordance with drawing 70102. The Quick Release Basket is installed in accordance with drawing 70101, 94501, or 94601 as applicable. The Quick Release Step is installed in accordance with drawing 80002. Removal of the basket or step leaving the beams in place is an approved configuration for flight. Logbook entry indicating installation or removal of basket or step and which weight and balance amendment is in effect is required.

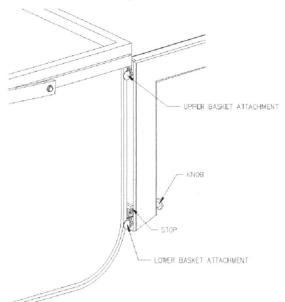


Figure 3 - Basket Attachment

- 1. Basket Installation Refer to Figure 3.
 - 1. Set basket upper attachment into slot on forward and aft beams.
 - At forward end of basket, lift until lower attachment fitting hits stop over keyway. Push fitting into keyway and slide basket down until locked. Repeat for aft end.
- 2. Basket Removal Refer to Figure 3.
 - Pull knob at bottom end of forward beam and lift basket until lower attachment fitting is free of keyway. Keep upper basket attachment in slot in beam. Repeat for aft end.

Lift basket until upper attachments are out of slots on beams and remove basket from helicopter.

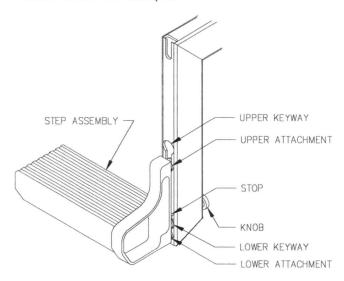


Figure 4 - Step Attachment

- 3. Step Installation Refer to Figure 4.
 - 1. Set upper attachment into upper keyway on forward and aft beams.
 - 2. Lift step until lower attachment hits stop over keyway. Push fitting into keyway and slid down until locked.
- 4. Step Removal Refer to Figure 4.
 - Pull knob at bottom end of forward beam and lift step until the lower attachment fitting is free of keyway. Keep upper attachment in keyway in beam. Repeat for aft end.
 - 2. Lift step until upper attachments are out of keyways in beams and remove from helicopter.



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BELL 206L SERIES

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT for the

INSTALLATION of the AERO DESIGN QUICK RELEASE CARGO BASKET AND/OR QUICK RELEASE STEP

TCCA Supplemental Type Certificate No. <u>SH00-48</u> FAA Supplemental Type Certificate No. <u>SR02253NY</u> EASA Supplemental Type Certificate No.

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Section V and any subsequent sections if present are Unapproved and are provided for information only.

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Record of Revisions

Revision	Issue Date	Pages Revised	Date Inserted	Ву
0	05 May, 2006	None		
1	09 Nov, 2006	2, 6		
2	17 July, 2008	All		
3	26 Oct, 2011	All		
4	22 Jan 2017	1, 2		
			.*:	

I LIMITATIONS

- 1. The maximum load in the AERO Design Ltd. Quick Release Cargo Basket is 300 lb. (136 kg).
- Flight operations limited to VFR conditions with AERO Design Ltd. Cargo Basket installed.
- 3. Quick Release Step may be installed when the basket is removed.

II NORMAL PROCEDURES

- 1. Pre-flight inspections:
 - Ensure that all cargo stored in the cargo basket is properly tied down and secured for flight.
 - b) Ensure that the lid of cargo basket is closed and secured.
 - Ensure the basket is locked in postion on the beams. Pull up on the forward and aft end of the basket to check.
 - d) Ensure the step is locked in position on the beams. Pull up on the forward and aft end of the step to check.

CAUTION

It is possible to exceed the lateral centre of gravity limits of the rotorcraft under some loading conditions. Pilots must ensure that lateral C of G is within limits when loading the basket.

III EMERGENCY PROCEDURES

No change from basic Approved Flight Manual.

CAUTION:

The rotorcraft glide angle is steeper than that of the basic helicopter when the AERO Design Ltd. Cargo Basket is installed.

IV PERFORMANCE

With the cargo basket installed:

Climb performance is reduced by up to 350 fpm.

Cruise performance and range are reduced by 10 percent.

V WEIGHT AND BALANCE

 The following weight and balance is for the low mounted quick release cargo basket configuration, installed in accordance with drawing 70201.

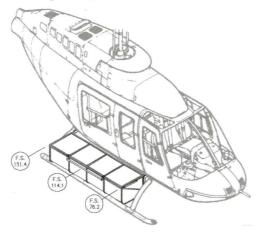


Figure 1 – Quick Release Cargo Basket (Configuration 70201)

Low Mounted Quick Release Cargo Basket Configuration

Item	Weight	Longitudinal		Lateral		
10111	Wolgin	Arm	Moment	Arm	Moment	
Basket	45.0 lb	114.1 in	5134 in*lb	38.5 in	1733 in*lb	
Only ¹	20.4 kg	2898 mm	59 122 mm*kg	978 mm	19 949 mm*kg	
Cargo ²	300 lb	114.1 in	34 230 in*lb	38.5 in	11 550 in*lb	
(MAX)	136 kg	2898 mm	393 413 mm*kg	978 mm	132 747 mm*kg	

¹ Weight and balance is for Cargo Basket only. Mounting beams and attachment provisions are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

CAUTION:

It is possible to exceed lateral CG limits in some configurations.

Revision 3 26 October 2011

² Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

The following weight and balance is for the quick release step configuration, installed in accordance with drawing 80002.

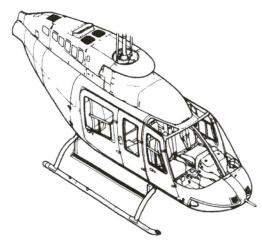


Figure 2 – Quick Release Step (Configuration 80002)

Quick Release Step Configuration

Item	Weight	Longitudinal		Lateral	
	Wolgin	Arm	Moment	Arm	Moment
Step	8.2 lb	114.1 in	935.6 in*lb	29.3 in	239.9 in*lb
Only ¹	3.7 kg	2898 mm	10 723 mm*kg	744 mm	2 754 mm*kg

Quick Release Step Configuration (Stowed Position)

Item	Weight	Longitudinal		Lateral	
	Wolgin	Arm	Moment	Arm	Moment
Step	8.2 lb	114.1 in	935.6 in*lb	23.7 in	194.3 in*lb
Only ¹	3.7 kg	2898 mm	10 723 mm*kg	602 mm	2 227 mm*kg

¹ Weight and balance is for Step only. Mounting beams and attachment provisions are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

 The following weight and balance is for the large low mounted quick release cargo basket configuration, installed in accordance with drawing 94502

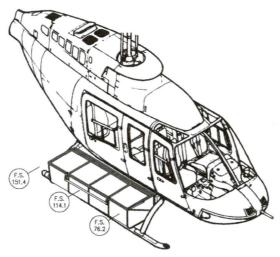


Figure 3 – Quick Release Cargo Basket (94502 Configuration)

Large Low Mounted Quick Release Cargo Basket Configuration

Item	Weight	Longitudinal		Lateral	
1.0111	Worgin	Arm	Moment	Arm	Moment
Basket	47.8 lb	114.1 in	5 454 in*lb	39.6 in	1 893 in*lb
Only ¹	21.6 kg	2898 mm	62 684 mm*kg	1006 mm	21 755 mm*kg
Cargo ²	300 lb	114.1 in	34 230 in*lb	39.6 in	11 880 in*lb
(MAX)	136 kg	2898 mm	393 413 mm*kg	1006 mm	136 539 mm*kg

¹ Weight and balance is for Cargo Basket only. Mounting beams and attachment provisions are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

CAUTION:

It is possible to exceed lateral CG limits in some configurations.

² Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

 The following weight and balance is for the large, long, low mounted quick release cargo basket configuration, installed in accordance with drawing 94602.

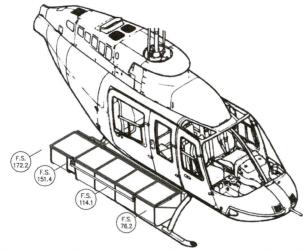


Figure 4 – Quick Release Cargo Basket (94602 Configuration)

Large Long Low Mounted Quick Release Cargo Basket Configuration

Item	Weight	Longitudinal		Lateral		
Itom	Worgin	Arm	Moment	Arm	Moment	
Basket	63.0 lb	125.0 in	7 875 in*lb	39.6 in	2 495 in*lb	
Only	28.5 kg	3175 mm	90 509 mm*kg	1006 mm	28 673 mm*kg	
Cargo ²	300 lb	114.1 in	34 230 in*lb	39.6 in	11 880 in*lb	
(MAX)	136 kg	2898 mm	393 413 mm*kg	1006 mm	136 539 mm*kg	

¹ Weight and balance is for Cargo Basket only. Mounting beams and attachment provisions are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

CAUTION:

It is possible to exceed lateral CG limits in some configurations.

² Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

VI INSTALLATION / REMOVAL INSTRUCTIONS

The Quick Release Mounting Provisions are installed in accordance with drawing 70202. The Quick Release Basket is installed in accordance with drawing 70201, 94502, or 94602 as applicable. The Quick Release Step is installed in accordance with drawing 80002. Removal of the basket or step leaving the beams in place is an approved configuration for flight. Logbook entry indicating installation or removal of basket or step and which weight and balance amendment is in effect is required.

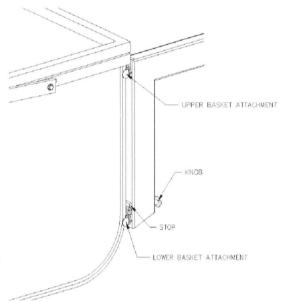


Figure 3 - Basket Attachment

- 1. Installation Refer to Figure 3.
 - 1. Set basket upper attachment into slot on forward and aft beams.
 - At forward end of basket, lift until lower attachment fitting hits stop over keyway. Push fitting into keyway and slide basket down until locked. Repeat for aft end.
- 2. Removal Refer to Figure 3.
 - Pull knob at bottom end of forward beam and lift basket until lower attachment fitting is free of keyway. Keep upper basket attachment in slot in beam. Repeat for aft end.

Lift basket until upper attachments are out of slots on beams and remove basket from helicopter.

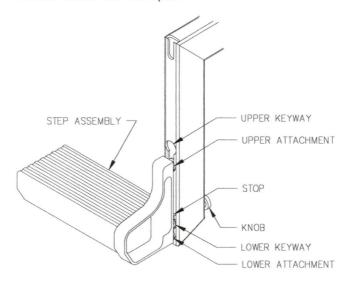


Figure 4 - Step Attachment

- 3. Step Installation Refer to Figure 4.
 - 1. Set upper attachment into upper keyway on forward and aft beams.
 - 2. Lift step until lower attachment hits stop over keyway. Push fitting into keyway and slid down until locked.
- 4. Step Removal Refer to Figure 4.
 - Pull knob at bottom end of forward beam and lift step until the lower attachment fitting is free of keyway. Keep upper attachment in keyway in beam. Repeat for aft end.
 - 2. Lift step until upper attachments are out of keyways in beams and remove from helicopter.

Aero Design Ltd.



9888A Malaspina Road Powell River, BC, V8A 0G3 Phone: 604-483-2376 Fax: 604-483-2372 www.aerodesign.ca

BELL 407

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT for the INSTALLATION of the AERO DESIGN HIGH MOUNTED QUICK RELEASE CARGO BASKET

TCCA Supplemental Type Certificate No. <u>SH00-48</u>
FAA Supplemental Type Certificate No. <u>SR02253NY</u>
EASA Supplemental Type Certificate No. _____

Sections I, II, III and IV of this document comprise the Transport Canada Approved sections of this Flight Manual Supplement. Compliance with Section I, Limitations, is mandatory.

Section V and any subsequent sections if present are Unapproved and are provided for information only.

The information and data contained in this Flight Manual Supplement supersede or supplement that contained in the basic Approved Flight Manual for the Bell 407 when fitted with the Cargo Basket Installation. For limitations, procedures and performance not listed in this Flight Manual Supplement, refer to the Approved Flight Manual and other approved Flight Manual Supplements.

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
PACIFIC REGION

OCT 0 2 2017

APPROVED
BY
CERTIFICATE NO.
SAMO CES ISSUECO

Revision 1 25 June 2017 Page 1
TRANSPORT CANADA APPROVED

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Record of Revisions

Revision	Issue Date	Pages Revised	Date Inserted	Ву
0	30 Oct 2007	Original		
1	25 June 2017	1, 2, 6, 7		
			8	

I LIMITATIONS

- 1. The maximum load in the AERO Design Ltd. Cargo Basket is 200 Lb. (90.9 kg).
- Flight operations limited to VFR conditions with AERO Design Ltd. Cargo Basket installed.
- 3. Maximum lateral or rearward speed limited to 25 KIAS.
- Maximum winds from aft quadrants limited to 25 KIAS for takeoff, landing or hover flight.
- V_{NE} is 140 KIAS except when the V_{NE} of the basic rotorcraft is more restrictive, in which case the lower V_{NE} applies.
- No occupants in the passenger cabin unless helicopter is equipped with approved push out emergency windows or sliding door on the basket side of the helicopter.

II NORMAL PROCEDURES

- 1. Pre-flight inspections:
 - Ensure basket is located in correct lateral keyway for the configuration of the helicopter (see section VI):
 - If a right hand sliding door is installed the basket <u>MUST</u> be positioned in the most outboard lateral position to provide clearance for the door to open.
 - If a pop-out window is installed on the helicopter, the basket may be installed in either position, but the preferred position is inboard for a more favorable lateral C of G.
 - Ensure that all cargo stored in the cargo basket does not extend outside the basket, is properly tied down and secured for flight.
 - c) Ensure that the lid of cargo basket is closed and secured.

CAUTION

It is possible to exceed the lateral centre of gravity limits of the rotorcraft under some loading conditions. Pilots must ensure that lateral C of G is within limits when loading the basket.

III EMERGENCY PROCEDURES

No change from basic Approved Flight Manual.

CAUTION:

The rotorcraft glide angle is steeper than that of the basic helicopter when the AERO Design Ltd. Cargo Basket is installed.

IV PERFORMANCE

Climb performance may be reduced by up to 200 fpm.

Cruise speeds are reduced by approximately 10 kts. (11 mph).

V WEIGHT AND BALANCE

1. The following weight and balance is for the high mounted quick release cargo basket configuration, installed in accordance with drawing 76601.

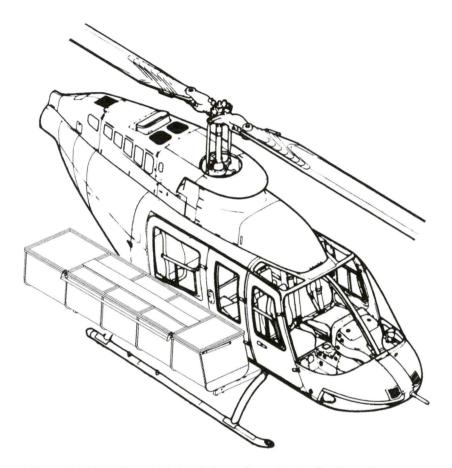


Figure 1 - High Mounted Quick Release Cargo Basket Configuration

High Mounted Quick Release Cargo Basket Configuration – Basket S/N 76601-01 thru 76601-27

Refer to section VI for definition of inboard and outboard installation.

English Units

		Longitudinal		Lat	eral
	Weight	Arm	Moment	Arm	Moment
Item	(lbs)	(in)	(in-lbs)	(in)	(in-lbs)
Cargo Basket (Outboard) Cargo (Max, Outboard)	65.8 200	124.4 124.4	8185.5 24880.0	46.8 46.8	3079.4 9360.0
Cargo Basket (Inboard) Cargo (Max, Inboard)	65.8 200	124.4 124.4	8185.5 24880.0	42.3 42.3	2783.3 8460.0

Metric Units

		Longitudinal		Lateral	
	Weight	Arm	Moment	Arm	Moment
Item	(kg)	(mm)	(mm-kg)	(mm)	(mm-kg)
Cargo Basket (Outboard) Cargo (Max, Outboard)	29.8 90.9	3159.8 3160	94291.3 287244	1188.7 1189	35472.9 108080
Cargo Basket (Inboard) Cargo (Max, Inboard)	29.8 90.9	3159.8 3160	94291.3 287244	1074.4 1074	32062.1 97627

Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

CAUTION:

It is possible to exceed lateral CG limits in some configurations. For example, with one pilot, no passengers, fuel tanks half empty, and the AERO Design Ltd. cargo basket loaded with 200 pounds of cargo, the Lateral CG of the rotorcraft could be out of limits.

High Mounted Quick Release Cargo Basket Configuration – Basket S/N 76601-28

Refer to section VI for definition of inboard and outboard installation.

English Units

		Longi	Longitudinal		Lateral	
	Weight	Arm	Moment	Arm	Moment	
Item	(lbs)	(in)	(in-lbs)	(in)	(in-lbs)	
Cargo Basket (Outboard)	69.0	124.4	8583.6	46.8	3229.2	
Cargo (Max, Outboard)	200	124.4	24880.0	46.8	9360.0	
Cargo Basket (Inboard)	69.0	124.4	8583.6	42.3	2918.7	
Cargo (Max, Inboard)	200	124.4	24880.0	42.3	8460.0	

Metric Units

		Longitudinal		Lateral	
	Weight	Arm	Moment	Arm	Moment
Item	(kg)	(mm)	(mm-kg)	(mm)	(mm-kg)
Cargo Basket					
(Outboard)	31.3	3159.8	98876.8	1188.7	37198.0
Cargo (Max, Outboard)	90.9	3160	287244	1189	108080
Cargo Basket (Inboard)	31.3	3159.8	98876.8	1074.4	33621.3
Cargo (Max, Inboard)	90.9	3160	287244	1074	97627

Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

CAUTION:

It is possible to exceed lateral CG limits in some configurations. For example, with one pilot, no passengers, fuel tanks half empty, and the AERO Design Ltd. cargo basket loaded with 200 pounds of cargo, the Lateral CG of the rotorcraft could be out of limits.

VI INSTALLATION / REMOVAL INSTRUCTIONS

Provisions on the beams allow the basket to be mounted in either an inboard lateral position or an outboard lateral position.

If a right hand sliding door is installed the basket <u>MUST</u> be positioned in the most outboard lateral position to provide clearance for the door to open.

If a pop-out window is installed on the helicopter, the basket may be installed in either position, but the inboard lateral position is recommended to give a more favorable lateral C of G.

A stop is to be installed to prevent use of an incorrect keyway in accordance with drawing 76601.

Installation

Refer to Figure 2 for outboard installation. Refer to Figure 3 for inboard installation.

- Set basket inboard attachment into inboard keyway on forward and aft beams. Slide basket to end of keyway.
- At forward end of basket, slide basket until outboard attachment fitting hits block at edge of keyway. Push fitting into keyway and slide until locked.
- 3. Repeat step 2 for aft end.

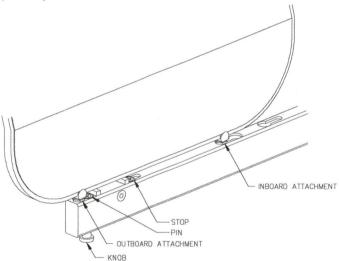


Figure 2 - Outboard Lateral Basket Attachment

Revision 0 30 October, 2007

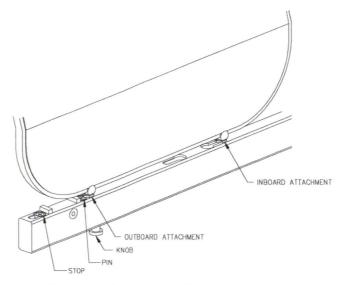


Figure 3 - Inboard Lateral Basket Attachment

Removal

Refer to Figure 2 and 3.

- Pull knob at outboard end of forward beam and slide basket until outboard attachment fitting is free of keyway. Keep inboard attachment in keyway on beam.
- Pull knob at outboard end of aft beam and slide basket until outboard attachment fitting is free of keyway. Keep inboard attachment in keyway on beam.
- 3. Slide basket until inboard attachments are out of keyway on beams and remove basket from helicopter.

Aero Design Ltd.



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BELL 206L SERIES

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT for the INSTALLATION of the AERO DESIGN HIGH MOUNTED QUICK RELEASE CARGO BASKET

TCCA Supplemental Type Certificate No. <u>SH00-48</u>
FAA Supplemental Type Certificate No. <u>SR02253NY</u>
EASA Supplemental Type Certificate No. _____

Sections I, II, III and IV of this document comprise the Transport Canada Approved sections of this Flight Manual Supplement. Compliance with Section I, Limitations, is mandatory.

Section V and any subsequent sections if present are Unapproved and are provided for information only.

The information and data contained in this Flight Manual Supplement supersede or supplement that contained in the basic Approved Flight Manual for the Bell 206L Series helicopter when fitted with the Cargo Basket Installation. For limitations, procedures and performance not listed in this Flight Manual Supplement, refer to the Approved Flight Manual and other approved Flight Manual Supplements.



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TRANSPORT CANADA APPROVED

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Record of Revisions

Revision	Issue Date	Pages Revised	Date Inserted	Ву
0	30 Oct 2007	Original		
1	25 June 2017	1, 2, 6, 7		
		-		

I LIMITATIONS

- 1. The maximum load in the AERO Design Ltd. Cargo Basket is 200 Lb. (90.9 kg).
- Flight operations limited to VFR conditions with AERO Design Ltd. Cargo Basket installed.
- 3. Maximum lateral or rearward speed limited to 25 KIAS.
- Maximum winds from aft quadrants limited to 25 KIAS for takeoff, landing or hover flight.
- 5. V_{NE} limitations are unchanged from the basic rotorcraft flight manual.
- No occupants in the passenger cabin unless helicopter is equipped with approved push out emergency windows or sliding door on the basket side of the helicopter.

II NORMAL PROCEDURES

- 1. Pre-flight inspections:
 - a) Ensure basket is located in correct lateral keyway for the configuration of the helicopter (see section VI):
 - If a right hand sliding door is installed the basket <u>MUST</u> be positioned in the most outboard lateral position to provide clearance for the door to open.
 - If a pop-out window is installed on the helicopter, the basket may be installed in either position, but the preferred position is inboard for a more favorable lateral C of G.
 - Ensure that all cargo stored in the cargo basket does not extend outside the basket, is properly tied down and secured for flight.
 - c) Ensure that the lid of cargo basket is closed and secured.

CAUTION

It is possible to exceed the lateral centre of gravity limits of the rotorcraft under some loading conditions. Pilots must ensure that lateral C of G is within limits when loading the basket.

III EMERGENCY PROCEDURES

No change from basic Approved Flight Manual.

CAUTION:

The rotorcraft glide angle is steeper than that of the basic helicopter when the AERO Design Ltd. Cargo Basket is installed.

IV PERFORMANCE

Climb performance may be reduced by up to 200 fpm.

Cruise speeds are reduced by approximately 10 kts. (11 mph).

V WEIGHT AND BALANCE

 The following weight and balance is for the high mounted quick release cargo basket configuration, installed in accordance with drawing 76601.

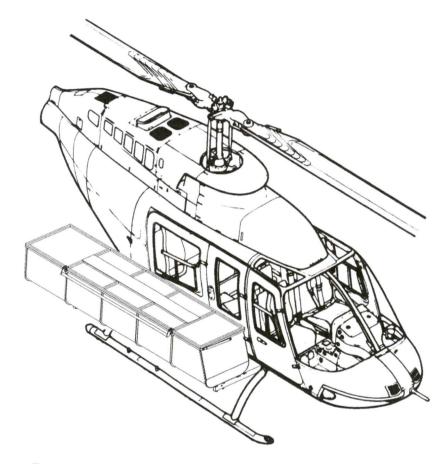


Figure 1 - High Mounted Quick Release Cargo Basket Configuration

High Mounted Quick Release Cargo Basket Configuration – Basket S/N 76601-01 thru 76601-27

Refer to section VI for definition of inboard and outboard installation.

English Units

		Longi	Longitudinal		eral
	Weight	Arm	Moment	Arm	Moment
Item	(lbs)	(in)	(in-lbs)	(in)	(in-lbs)
Cargo Basket (Outboard) Cargo (Max, Outboard)	65.8 200	124.4 124.4	8185.5 24880.0	46.8 46.8	3079.4 9360.0
Cargo Basket (Inboard) Cargo (Max, Inboard)	65.8 200	124.4 124.4	8185.5 24880.0	42.3 42.3	2783.3 8460.0

Metric Units

		Longitudinal		Lateral	
	Weight	Arm	Moment	Arm	Moment
Item	(kg)	(mm)	(mm-kg)	(mm)	(mm-kg)
Cargo Basket					
(Outboard)	29.8	3159.8	94291.3	1188.7	35472.9
Cargo (Max, Outboard)	90.9	3160	287244	1189	108080
Cargo Basket (Inboard)	29.8	3159.8	94291.3	1074.4	32062.1
Cargo (Max, Inboard)	90.9	3160	287244	1074	97627

Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

CAUTION:

It is possible to exceed lateral CG limits in some configurations. For example, with one pilot, no passengers, fuel tanks half empty, and the AERO Design Ltd. cargo basket loaded with 200 pounds of cargo, the Lateral CG of the rotorcraft could be out of limits.

High Mounted Quick Release Cargo Basket Configuration – Basket S/N 76601-28 and sub.

Refer to section VI for definition of inboard and outboard installation.

English Units

		Longitudinal		Lateral	
	Weight	Arm	Moment	Arm	Moment
Item	(lbs)	(in)	(in-lbs)	(in)	(in-lbs)
Cargo Basket (Outboard)	69.0	124.4	8583.6	46.8	3229.2
Cargo (Max, Outboard)	200	124.4	24880.0	46.8	9360.0
Cargo Basket (Inboard)	69.0	124.4	8583.6	42.3	2918.7
Cargo (Max, Inboard)	200	124.4	24880.0	42.3	8460.0

Metric Units

		Longitudinal		Lateral	
	Weight	Arm	Moment	Arm	Moment
Item	(kg)	(mm)	(mm-kg)	(mm)	(mm-kg)
Cargo Basket					
(Outboard)	31.3	3159.8	98876.8	1188.7	37198.0
Cargo (Max, Outboard)	90.9	3160	287244	1189	108080
Cargo Basket (Inboard)	31.3	3159.8	98876.8	1074.4	33621.3
Cargo (Max, Inboard)	90.9	3160	287244	1074	97627

Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

CAUTION:

It is possible to exceed lateral CG limits in some configurations. For example, with one pilot, no passengers, fuel tanks half empty, and the AERO Design Ltd. cargo basket loaded with 200 pounds of cargo, the Lateral CG of the rotorcraft could be out of limits.

VI INSTALLATION / REMOVAL INSTRUCTIONS

Provisions on the beams allow the basket to be mounted in either an inboard lateral position or an outboard lateral position.

If a right hand sliding door is installed the basket <u>MUST</u> be positioned in the most outboard lateral position to provide clearance for the door to open.

If a pop-out window is installed on the helicopter, the basket may be installed in either position, but the inboard lateral position is recommended to give a more favorable lateral C of G.

A stop is to be installed to prevent use of an incorrect keyway in accordance with drawing 76601.

Installation

Refer to Figure 2 for outboard installation. Refer to Figure 3 for inboard installation.

- Set basket inboard attachment into inboard keyway on forward and aft beams. Slide basket to end of keyway.
- At forward end of basket, slide basket until outboard attachment fitting hits block at edge of keyway. Push fitting into keyway and slide until locked.
- 3. Repeat step 2 for aft end.

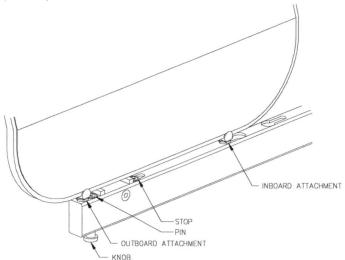


Figure 2 - Outboard Lateral Basket Attachment

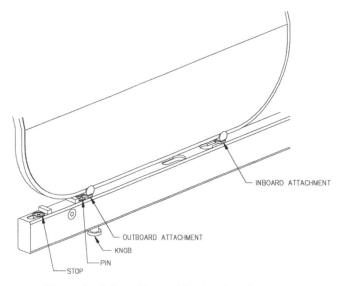


Figure 3 - Inboard Lateral Basket Attachment

Removal

Refer to Figure 2 and 3.

- Pull knob at outboard end of forward beam and slide basket until outboard attachment fitting is free of keyway. Keep inboard attachment in keyway on beam.
- Pull knob at outboard end of aft beam and slide basket until outboard attachment fitting is free of keyway. Keep inboard attachment in keyway on beam.
- Slide basket until inboard attachments are out of keyway on beams and remove basket from helicopter.



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www.aerodesign.ca

SIGNED UNDERTAKING

In accordance with CAR 521	Aero Design Ltd.		hereby
	Company to hold the approval do		
undertake to carry out the respon		oval document	holder, as set out in
Division VIII of Part V, Subpart 21	of the CARs, regarding:		
1 Tachnical canability			
Technical capability,			
2. Service difficulty reporting			
3. Establishing a service diffi			
Investigation of service di	fficulty reports,		
Mandatory changes,			
6. Transfers,			
Record keeping and loss of	or disposal of records,		
8. Manuals,			
Instructions for continued	d airworthiness, and		
10. Supplemental integrity in	structions		
The responsibilities noted above or more of the following number		data which may	be found with one
Transport Canada file number:	P-17-0172		
and/or			700 000 045 046
Project Reference number:	492, 493, 623,	698, 700, 701,	702, 800, 945, 946
Approval Number:	SH00-48, Issue	10	
Approvar Number.	31100-40, 13300	, 10	
x West.		(02 October 2017
Signature of Holder's authorized person:		Date:	
Vice President		_	
Position / Title:			



9888A Malaspina Road Powell River, BC, V8A 0G3 Phone: 604-483-2376 Fax: 604-483-2372 www.aerodesign.ca

DECLARATION OF CONFORMITY WITH THE CERTIFICATION BASIS

In accordance with Canadian Aviation Regulations Subpart 521, I hereby declare that the design of the External Attachment Provisions, Cargo Basket Installations, Auxiliary Step and Quick Release Step, as detailed in the data approved by Transport Canada on approval SH00-48, Issue 10, has been demonstrated to conform to the best of my knowledge to the basis of certification established by the Minister for that approval in file P-17-0172.

Aero Design Lt	<u>d.</u>		
per:	Ceh.		
Jeff Cla	rke	Vice President	02 October 2017
Print Nam	e	Title	Date

Department of Transport

Supplemental Type Certificate

This approval is issued to:

Aero Design Ltd.

9888A Malaspina Road

Powell River, BC

Canada V8A 0G3

Number: SH00-48

Issue No.: 10

Approval Date:

December 08, 2000

Issue Date:

Responsible Office:

Prairie and Northern

Aircraft/Engine Type or Model:

BELL 206L, 206L-1, 206L-3, 206L-4, 407 BELL 206L,206L-1,206L-3,206L-4,407 H-92

Canadian Type Certificate or Equivalent:

Description of Type Design Change:

Installation of Cargo Basket / External Attachment

Provisions/Auxiliary Step/Quick Release Step

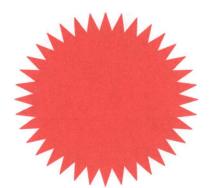
Installation/Operating Data, Required Equipment and Limitations:

Installation: See Continuation Sheets

Operation: See Continuation Sheets

Maintenance: See Continuation Sheets

Certification Basis: See Continuation Sheets



Conditions: This approval is only applicable to the type/model of aeronautical product specified therein. Prior to incorporating this modification, the installer shall establish that the interrelationship between this change and any other modification(s) incorporated will not adversely affect the airworthiness of the modified product.

> D.S. Austen For Minister of Transport



(Continuation Sheet)

Number: SH00-48 Issue 9

NOTE: THIS ADDENDUM SHALL REMAIN PART OF THE CERTIFICATE REFERRED TO THEREIN.

Bell 407 Only:

Configuration	Installation	Operation	Maintenance
A - External Attachment	DCL700-1 Rev. 2,	FMS700.91 Rev. 1	ICA700.90 Rev. 1
Provisions (may remain	10 April 2017*	22 January 2017*	09 February 2017**
installed if basket is	_	_	,
removed)			
B - Low Mounted Fixed	DCL606 Rev. 4,	FMS606.01 Rev. 3	ICA492.90 Rev. 2
(High Skid Gear)	11 April 2017*	22 January 2017*	04 February 2017**
C - High Mounted	DCL606-1 Rev. 2,	FMS606.01 Rev. 3	ICA606.90 Rev. 3
Fixed***	11 April 2017*	22 January 2017*	05 February 2017**
D - Low Mounted Quick	DCL701 Rev. 5,	FMS701.90 Rev. 4	ICA698.90 Rev. 4
Release (High Skid Gear)	25 June 2017*	22 January 2017*	10 February 2017**
Model 698			,
E - High Mounted Quick	DCL766 Rev. 2,	FMS766.91 Rev. 1	ICA766.90 Rev. 1
Release***	25 June 2017*	22 January 2017*	10 February 2017**
F - Low Mounted Quick	DCL945-1 Rev. 1,	FMS701.90 Rev. 4	ICA698.90 Rev. 4
Release (High Skid Gear)	25 June 2017*	22 January 2017*	10 February 2017**
Model 945		~ *	,
G - Low Mounted Quick	DCL946-1 Rev. 1,	FMS701.90 Rev. 4	ICA698.90 Rev. 4
Release (High Skid Gear)	25 June 2017*	22 January 2017*	10 February 2017**
Model 946			,

^{*} or later approved revision

^{**} or later accepted revision

^{***} approved emergency push out windows or an approved sliding door are required on the side of the helicopter that a basket is installed on if passengers are to be carried.

(Continuation Sheet)

Number: SH00-48 Issue 9

NOTE: THIS ADDENDUM SHALL REMAIN PART OF THE CERTIFICATE REFERRED TO THEREIN.

Bell 206L, L-1, L-3, L-4 Only:

Configuration	Installation	Operation	Maintenance
A - External Attachment	DCL493 Rev. 7,	FMS493.01 Rev. 1	ICA493.90 Rev. 1
Provisions (may remain	10 April 2017*	22 January 2017*	09 February 2017**
installed if basket is	_		
removed)			
B - Low Mounted Fixed	DCL492 Rev. 7,	FMS492.01 Rev. 3	ICA492.90 Rev. 2
(High Skid Gear)	10 April 2017*	22 January 2017*	04 February 2017**
C - Low Mounted Quick	DCL702 Rev. 4,	FMS702.90 Rev. 4	ICA698.90 Rev. 4
Release (High Skid Gear)	25 June 2017*	22 January 2017*	10 February 2017**
Model 698			
D - High Mounted Quick	DCL766-1 Rev. 2,	FMS766.92 Rev. 1	ICA766.90 Rev. 1
Release***	25 June 2017*	22 January 2017*	10 February 2017**
E - Low Mounted Quick	DCL945-2 Rev. 1,	FMS702.90 Rev. 4	ICA698.90 Rev. 4
Release (High Skid Gear)	25 June 2017*	22 January 2017*	10 February 2017**
Model 945		-	
F - Low Mounted Quick	DCL946-2 Rev. 1,	FMS702.90 Rev. 4	ICA698.90 Rev. 4
Release (High Skid Gear)	25 June 2017*	22 January 2017*	10 February 2017**
Model 946			

^{*} or later approved revision

^{**} or later accepted revision

^{***} approved emergency push out windows or an approved sliding door are required on the side of the helicopter that a basket is installed on if passengers are to be carried.



Number: SH00-48 Issue 9

NOTE: THIS ADDENDUM SHALL REMAIN PART OF THE CERTIFICATE REFERRED TO THEREIN.

Bell 206L series and Bell 407:

Configuration	Installation	Operation	Maintenance
Auxiliary Step Installation	DCL623 Rev. 5,	n/a	ICA623.92 Rev. 2
(optional)	31 May 2017*		11 February 2017**
Basket Modifications	DCL704 Rev. 11,	***	***
(options)	25 June 2017*		
Quick Release Step	DCL800-2 Rev. 1,	Per applicable	ICA800.90 Rev. 3
(optional with:	31 May 2017*	installed basket	13 January 2015**
407 configs. D, F, G		configuration if	
206L configs. C, E, F)		installed.	

^{*} or later approved revision

Certification Basis: The certification basis for the affect paragraphs is as follows:

Bell 407 Configurations

All configurations	As per TCDS H-92 for the Bell 407, FAR 27 amendment 27-30
--------------------	---

Bell 206L Series Configurations

A - Attachment Provisions	FAR Part 27 amendment 27-24 (206L-4 basis)
B - Low Mounted Fixed	, ,
All other 206L configurations	FAR Part 27 amendment 27-30 (407 basis)

- End -

^{**} or later accepted revision

^{***} FMS and $I\hat{C}A$ required by the basket configuration remain applicable



Tel: 604.483.2376 Fax: 604.483.2372 www.aerodesign.ca

31 July 2017

Transport Canada Civil Aviation 820 – 800 Burrard Street Vancouver, BC V6Z 2J8

Attention: Michael Chan

Re:

STC SH00-48 Update

Michael.

Please find enclosed a CD with all of the updated documents in support of re-issue of SH00-48.

Please note our requested completion date is mid-October to meet an operator requirement to use one of the configurations that is updated.

If you have any questions please feel free to contact me.

Thank you,

Jeff Clarke, P.Tech.(Eng.)

Encl.



DESIGN CHANGE APPROVAL APPLICATION

DEMANDE D'APPROBATION D'UNE MODIFICATION DE LA CONCEPTION

Legal name and address of applican Nom et adresse légal du demandeur			and address of presse légal du titula			Name and address for billing purposes (if different than applicant) Nom et adresse aux fins de facturation		
Aero Design Ltd.		Aero D	esign Ltd.			(si différent du demandeur)		
9888A Malaspina Roa	d		Malaspina					
Powell River, BC, C	anada	Powell	River, BO	C, Canada				
V8A 0G3		V8A OG	3					
Identification of aeronautical product	/ Identification du produ	it aéronautiq	ue					
Make / Marque	Model / Modèle		Registration / Imi	matriculation	Serial	No. / N° du série Part No. / N'	de la pièce	
Bel1	206L Series,	407	All eligi	ble	All	eligible	•	
Request for (check appropriate box)			parrás salan la cas				orih.	
request for (creek appropriate box)	7 Objet de la demande (Cochez les c	arres selon le cas	,		Type Design Examination by Foreign Auth Examen de la définition de type par autori		
STC			r Design Approval bation de la conce	(RDA) ption de réparation	(ACR)			
STC (single serial number) CTS (numéro de série simp	le)		r Design Approval Processus de rép			Application to a foreign authority i	s requested	
STC (multiple serial number			esign Approval (P			La demande à une autorité étrang		
CTS (numéros de série mul				ption de pièce (ACF	P)	Type design examination of foreign	n change	
Type Certificate Revision Revision de certificat de typ						Examen de la définition de type m		étrangère
- Bautaian	е	Cumant la				Identify		
Révision No. SHOO	-48	Current Iss Édition act	tive 9			Identifier		
E Bashista Colonia		_						
Catégorie restreinte Type	e of Operation e d'opération							
Title and brief description of modifical	ition, repair or replacem	ent part, inclu	uding effects of cha	anges (use addition	al pages	s if necessary). Refer to CAR 521.155(b)(i) gements (utiliser des feuilles supplémentai	for details.	eniro)
Référez-vous à RAC 521.155(b)(i) po	our des détails.	ou ue la piet	oc de recriange, y	compris les ellets d	ss Glali	gernerus (uniser des reunies supplementar	es si lieces	saire).
Installation of ext	ernal attach	ment pr	covisions;	installat	ion	of cargo basket; insta	llation	n of
steps								
Applicable Type Certificate (TC) / Ce	ertificat de type (CT) per	tinent						
TC No. / N° de CT		Issue No. /	N° de l'édition			Identify State of Design / Identifier I'ét	at de conce	ption
H-92			2	26		Canada		
The applicant is responsible for the c	control of product manuf	acture / Le de	emandeur est resp	onsable du contôle	de la fa	brication du produit		
Yes No	If no, identify who is r							
Oui Non	Si non, identifier qui		ble					
		Danuma	atation to be a be					licant andeur
			entation to be submenentation à soume					nitted
								umis
							Yes	No
Proposed certification basis					* 1,500	and the state of the control of the state of	Oui	Non
Proposition de base de certification							٧	
Certification plan in accordance with CAR 521.155(d) Plan de certification selon RAC 521.155(d)			1					
Applicant's remarks / Remarques du	demandeur		***************************************				L	
Update approval for new holder address and minor changes.								
I hereby certify that the information contained herein is correct and complete. I agree to pay described in Part 1, Subpart 4 of the CARs (CAR 104-Charges). Je certifie que les renseignements figurant ci-dessus sont exacts et complets. Je m'engage à payer les redevances prescribes à la sous-partie 4 de la partie I du RAC (sous-partie 104).								
	A CARS (CA	104-Charg	co).	du RAC - Redeva		гезоптез а та зоих-рагие 4 de та рапте I du	CAC (SOUS-	parue 104
~~ 1	11/1							
JEFF CLARKE IM Colo. VICE PRESIDENT 2017-07-8				0		^ -		1
Name and Signature of Applicant	III Clah	,	VICE	PRESTOE	シナ	2017 - 07 - 2 Date (yyyy-mm-dd) /	7	

APPENDIX A-3 NORMAL CATEGORY ROTORCRAFT - CAR 527

BLOCK 1

Name of the applicant for the design change approval:

Aero Design Ltd.

Description of the design change:

Installation of Low Mounted Quick Release Cargo Baskets on Bell 206L Series and 407

Certification Basis of design change and revision date:

FAR 27, Amendment 27-30

CAR Standard A527.1(c) Program showing how changes to supplemental ICA made by the applicant or by the manufacturers of products and appliances installed in the aeroplane pursuant to the design change will be distributed:

Section 0-3 of Supplemental ICA (ICA 698.90, Rev. 4)

CAR Standard 513.05 (1) (g) (iv): Installation Instructions:

Installation Drawing 70101, 70102, 70201, 70202, 94501, 94502, 94601, 94602

BLOCK 2

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.2 (a) Manual(s) (a) The Instructions for Continued Airworthiness must be in the form of a manual or manuals as appropriate for the quantity of data to be provided.	ICA ref: Bell 206L/407 Maintenance Manuals, BHT-206L-MM/BHT-407- MM	Supplemental ICA ref: Single Manual (ICA698.90)
A527.2 (b) Practical arrangement (b) The format of the manual or manuals must provide for a practical arrangement.	ICA ref: Bell 206L/407 Maintenance Manuals	Supplemental ICA ref: Arranged in ATA format
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		
A527.3 (a) Rotorcraft maintenance manual or section		
A527.3 (a) (1) (Introduction) (1) Introduction information that includes an explanation of the rotorcraft's features and data to the extent necessary for maintenance or preventive maintenance.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 1	Supplemental ICA ref: Section 0-1
A527.3 (a) (2) (Description) (2) A description of the rotorcraft and its systems and installations including its engines, rotors, and appliances.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 1	Supplemental ICA ref: Section 0-5, 0-6

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (a) (3) Control & Operation (3) Basic control and operation information describing how the rotorcraft components and systems are controlled and how they operate, including any special procedures and limitations that apply.	ICA ref: N/A	Supplemental ICA ref: N/A
A527.3 (a) (4) Servicing (4) Servicing information that covers details regarding servicing points, capacities of tanks, reservoirs, types of fluids to be used, pressures applicable to the various systems, location of access panels for inspection and servicing, locations of lubrication points, lubricants to be used, equipment required for servicing, tow instructions and limitations, mooring, jacking, and levelling information.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 12	Supplemental ICA ref: N/A
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		
A527.3 (b) Maintenance Instructions. A527.3 (b) (1) Scheduling 1) Scheduling information for each part of the rotorcraft and its engines, auxiliary power units, rotors, accessories, instruments, and equipment that provides the recommended periods at which they should be cleaned, inspected, adjusted, tested, and lubricated, and the degree of inspection, the applicable wear tolerances, and work recommended at these periods. However, the applicant may refer to an accessory, instrument, or equipment manufacturer as the source of this information if the applicant shows that the item has an exceptionally high degree of complexity requiring specialized maintenance techniques, test equipment, or expertise. The recommended overhaul periods and necessary cross-references to the Airworthiness Limitations section of the manual must also be included. In addition, the applicant must include an inspection program that includes the frequency and extent of the inspections necessary to provide for the continued airworthiness of the rotorcraft.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (b) (2) Troubleshooting (2) Troubleshooting information describing probable malfunctions, how to recognize those malfunctions, and the remedial action for those malfunctions.	ICA ref: N/A	Supplemental ICA ref: N/A

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (b) (3) Removal/replacement (3) Information describing the order and method of removing and replacing products and parts with any necessary precautions to be taken.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 25	Supplemental ICA ref: Section 25-1 thru 25-9
A527.3 (b) (4) General (4) Other general procedural instructions including procedures for system testing during ground running, symmetry checks, weighing and determining the center of gravity, lifting and shoring, and storage limitations.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 7 and 8	Supplemental ICA ref: Section 25-10
A527.3 (c) Access (c) Diagrams of structural access plates and information needed to gain access for inspections when access plates are not provided.	ICA ref: N/A	Supplemental ICA ref: N/A
A527.3 (d) Special inspections (d) Details for the application of special inspection techniques including radiographic and ultrasonic testing where such processes are specified.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (e) Protective treatment (e) Information needed to apply protective treatments to the structure after inspection.	ICA ref: Bell Standard Practices Manual BHT-ALL-SPM, Chapter 3	Supplemental ICA ref: Section 5-3
A527.3 (f) Fasteners, torque values, etc (f) All data relative to structural fasteners such as identification, discard recommendations, and torque values.	ICA ref: Bell Standard Practices Manual BHT-ALL-SPM, Chapter 2	Supplemental ICA ref: Section 25-11
A527.3 (g) Special tools (g) A list of special tools needed.	ICA ref: N/A	Supplemental ICA ref: N/A

BLOCK 3

A527.4 AWL - Separate Section 1

The Instructions for Continued Airworthiness must

APPENDIX A-3 NORMAL CATEGORY ROTORCRAFT - CAR 527

BLOCK 1

Name of the applicant for the design change approval:

Aero Design Ltd.

Description of the design change:

Installation of High Mounted Quick Release Cargo Baskets on Bell 206L Series and 407

Certification Basis of design change and revision date:

FAR 27, Amendment 27-30

CAR Standard A527.1(c) Program showing how changes to supplemental ICA made by the applicant or by the manufacturers of products and appliances installed in the aeroplane pursuant to the design change will be distributed:

Section 0-3 of Supplemental ICA (ICA 766.90, Rev. 1)

CAR Standard 513.05 (1) (g) (iv): Installation Instructions:

Installation Drawing 76601

BLOCK 2

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.2 (a) Manual(s) (a) The Instructions for Continued Airworthiness must be in the form of a manual or manuals as appropriate for the quantity of data to be provided.	ICA ref: Bell 206L/407 Maintenance Manuals, BHT-206L-MM/BHT-407- MM	Supplemental ICA ref: Single Manual (ICA766.90)
A527.2 (b) Practical arrangement (b) The format of the manual or manuals must provide for a practical arrangement.	ICA ref: Bell 206L/407 Maintenance Manuals	Supplemental ICA ref: Arranged in ATA format
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		
A527.3 (a) Rotorcraft maintenance manual or section		
A527.3 (a) (1) (Introduction) (1) Introduction information that includes an explanation of the rotorcraft's features and data to the extent necessary for maintenance or preventive maintenance.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 1	Supplemental ICA ref: Section 0-1
A527.3 (a) (2) (Description) (2) A description of the rotorcraft and its systems and installations including its engines, rotors, and appliances.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 1	Supplemental ICA ref: Section 0-5, 0-6

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (a) (3) Control & Operation (3) Basic control and operation information describing how the rotorcraft components and systems are controlled and how they operate, including any special procedures and limitations that apply.	ICA ref: N/A	Supplemental ICA ref: N/A
A527.3 (a) (4) Servicing (4) Servicing information that covers details regarding servicing points, capacities of tanks, reservoirs, types of fluids to be used, pressures applicable to the various systems, location of access panels for inspection and servicing, locations of lubrication points, lubricants to be used, equipment required for servicing, tow instructions and limitations, mooring, jacking, and levelling information.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 12	Supplemental ICA ref: N/A
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		
A527.3 (b) Maintenance Instructions. A527.3 (b) (1) Scheduling 1) Scheduling information for each part of the rotorcraft and its engines, auxiliary power units, rotors, accessories, instruments, and equipment that provides the recommended periods at which they should be cleaned, inspected, adjusted, tested, and lubricated, and the degree of inspection, the applicable wear tolerances, and work recommended at these periods. However, the applicant may refer to an accessory, instrument, or equipment manufacturer as the source of this information if the applicant shows that the item has an exceptionally high degree of complexity requiring specialized maintenance techniques, test equipment, or expertise. The recommended overhaul periods and necessary cross-references to the Airworthiness Limitations section of the manual must also be included. In addition, the applicant must include an inspection program that includes the frequency and extent of the inspections necessary to provide for the continued airworthiness of the rotorcaft.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (b) (2) Troubleshooting (2) Troubleshooting information describing probable malfunctions, how to recognize those malfunctions, and the remedial action for those malfunctions.	ICA ref: N/A	Supplemental ICA ref: N/A

MSI 53 - Review of Supplemental Instructions for Continued Airworthiness

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (b) (3) Removal/replacement (3) Information describing the order and method of removing and replacing products and parts with any necessary precautions to be taken.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 25	Supplemental ICA ref: Section 25-1 thru 25-8
A527.3 (b) (4) General (4) Other general procedural instructions including procedures for system testing during ground running, symmetry checks, weighing and determining the center of gravity, lifting and shoring, and storage limitations.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 7 and 8	Supplemental ICA ref: Section 25-9
A527.3 (c) Access (c) Diagrams of structural access plates and information needed to gain access for inspections when access plates are not provided.	ICA ref: N/A	Supplemental ICA ref: N/A
A527.3 (d) Special inspections (d) Details for the application of special inspection techniques including radiographic and ultrasonic testing where such processes are specified.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (e) Protective treatment (e) Information needed to apply protective treatments to the structure after inspection.	ICA ref: Bell Standard Practices Manual BHT-ALL-SPM, Chapter 3	Supplemental ICA ref: Section 5-3
A527.3 (f) Fasteners, torque values, etc (f) All data relative to structural fasteners such as identification, discard recommendations, and torque values.	ICA ref: Bell Standard Practices Manual BHT-ALL-SPM, Chapter 2	Supplemental ICA ref: Section 25-10
A527.3 (g) Special tools (g) A list of special tools needed.	ICA ref: N/A	Supplemental ICA ref: N/A

BLOCK 3

A527.4 AWL - Separate Section 1

The Instructions for Continued Airworthiness must

contain a section titled Airworthiness Limitations that is segregated and clearly distinguishable from the rest of the document. This section must set forth each mandatory replacement time, structural inspection interval, and related structural inspection procedure approved under 527.571. If the Instructions for Continued Airworthiness consist of multiple documents, the section required by this paragraph must be included in the principal manual. This section must contain a legible statement in a prominent location that reads: "The Airworthiness Limitations section is approved by the Minister and specifies maintenance required by any applicable airworthiness or operating rule unless an alternative program has	1	Supplemental ICA ref: Chapter 4		
been approved by the Minister."				
BLOCK 4 – Applicant Statement of Compliance				
The Supplemental ICA referenced above comprises the complete listing of supplemental ICA necessary to show compliance with the regulatory standard that supports this change in type design. Applicants Signature: Date: 25 June 2017 Applicants Name: Jeff Clarke, Vice President - Aero Design Ltd.				
BLOCK 5 – Minister's Statement of Acceptability				
The design change is adequately supported by existing ICA and/or supplemental ICA, as identified above and is acceptable to the Minister.				
Reviewer's Name: Phone	# Email:	Mail Routing Symbol:		
Signature:	Date:	NAPA Number:		

APPENDIX A-3 NORMAL CATEGORY ROTORCRAFT - CAR 527

BLOCK 1

Name of the applicant for the design change approval:

Aero Design Ltd.

Description of the design change:

Installation of External Attachment Provisions on Bell 407

Certification Basis of design change and revision date:

FAR 27, Amendment 27-30

CAR Standard A527.1(c) Program showing how changes to supplemental ICA made by the applicant or by the manufacturers of products and appliances installed in the aeroplane pursuant to the design change will be distributed:

Section 0-3 of Supplemental ICA (ICA 700.90, Rev. 1)

CAR Standard 513.05 (1) (g) (iv): Installation Instructions:

Installation Drawing 60602

BLOCK 2

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.2 (a) Manual(s) (a) The Instructions for Continued Airworthiness must be in the form of a manual or manuals as appropriate for the quantity of data to be provided.	ICA ref: Bell 206L/407 Maintenance Manuals, BHT-206L-MM/BHT-407- MM	Supplemental ICA ref: Single Manual (ICA700.90)
A527.2 (b) Practical arrangement (b) The format of the manual or manuals must provide for a practical arrangement.	ICA ref: Bell 206L/407 Maintenance Manuals	Supplemental ICA ref: Arranged in ATA format
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		
A527.3 (a) Rotorcraft maintenance manual or section		
A527.3 (a) (1) (Introduction) (1) Introduction information that includes an explanation of the rotorcraft's features and data to the extent necessary for maintenance or preventive maintenance.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 1	Supplemental ICA ref: Section 0-1
A527.3 (a) (2) (Description) (2) A description of the rotorcraft and its systems and installations including its engines, rotors, and appliances.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 1	Supplemental ICA ref: Section 0-5

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (a) (3) Control & Operation (3) Basic control and operation information describing how the rotorcraft components and systems are controlled and how they operate, including any special procedures and limitations that apply.	ICA ref: N/A	Supplemental ICA ref: N/A
A527.3 (a) (4) Servicing (4) Servicing information that covers details regarding servicing points, capacities of tanks, reservoirs, types of fluids to be used, pressures applicable to the various systems, location of access panels for inspection and servicing, locations of lubrication points, lubricants to be used, equipment required for servicing, tow instructions and limitations, mooring, jacking, and levelling information.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 12	Supplemental ICA ref: N/A
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		
A527.3 (b) Maintenance Instructions. A527.3 (b) (1) Scheduling		
1) Scheduling information for each part of the rotorcraft and its engines, auxiliary power units, rotors, accessories, instruments, and equipment that provides the recommended periods at which they should be cleaned, inspected, adjusted, tested, and lubricated, and the degree of inspection, the applicable wear tolerances, and work recommended at these periods. However, the applicant may refer to an accessory, instrument, or equipment manufacturer as the source of this information if the applicant shows that the item has an exceptionally high degree of complexity requiring specialized maintenance techniques, test equipment, or expertise. The recommended overhaul periods and necessary cross-references to the Airworthiness Limitations section of the manual must also be included. In addition, the applicant must include an inspection program that includes the frequency and extent of the inspections necessary to provide for the continued airworthiness of the rotorcraft.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (b) (2) Troubleshooting (2) Troubleshooting information describing probable malfunctions, how to recognize those malfunctions, and the remedial action for those malfunctions.	ICA ref: N/A	Supplemental ICA ref: N/A

MSI 53 - Review of Supplemental Instructions for Continued Airworthiness

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (b) (3) Removal/replacement (3) Information describing the order and method of removing and replacing products and parts with any necessary precautions to be taken.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 32	Supplemental ICA ref: Section 32-1 thru 32-4
A527.3 (b) (4) General (4) Other general procedural instructions including procedures for system testing during ground running, symmetry checks, weighing and determining the center of gravity, lifting and shoring, and storage limitations.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 7 and 8	Supplemental ICA ref: Section 32-5
A527.3 (c) Access (c) Diagrams of structural access plates and information needed to gain access for inspections when access plates are not provided.	ICA ref: N/A	Supplemental ICA ref: N/A
A527.3 (d) Special inspections (d) Details for the application of special inspection techniques including radiographic and ultrasonic testing where such processes are specified.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (e) Protective treatment (e) Information needed to apply protective treatments to the structure after inspection.	ICA ref: Bell Standard Practices Manual BHT-ALL-SPM, Chapter 3	Supplemental ICA ref: Section 5-3
A527.3 (f) Fasteners, torque values, etc (f) All data relative to structural fasteners such as identification, discard recommendations, and torque values.	ICA ref: Bell Standard Practices Manual BHT-ALL-SPM, Chapter 2	Supplemental ICA ref: Section 32-6
A527.3 (g) Special tools (g) A list of special tools needed.	ICA ref: N/A	Supplemental ICA ref: N/A

BLOCK 3

A527.4 AWL - Separate Section 1 The Instructions for Continued Airworthiness must contain a section titled Airworthiness Limitations that is segregated and clearly distinguishable from the rest of the document. This section must set forth each mandatory replacement time, structural inspection interval, and related structural inspection procedure approved under 527.571. If the Instructions for Continued Airworthiness consist of multiple documents, the section required by this paragraph must be included in the principal manual. This section must contain a legible statement in a prominent location that reads: "The Airworthiness Limitations section is approved by the Minister and specifies maintenance required by any applicable airworthiness or operating rule unless an alternative program has been approved by the Minister."	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 4	Supplemental ICA ref: Chapter 4	
BLOCK 4 – Applicant Statement of Compliance			
The Supplemental ICA referenced above comprises the complete listing of supplemental ICA necessary to show compliance with the regulatory standard that supports this change in type design.			
Applicants Signature: Date: 25 June 2017			
Applicants Name: Jeff Clarke, Vice President	t - Aero Design Ltd.	-	
BLOCK 5 – Minister's Statement of Acceptability			
The design change is adequately supported by existing ICA and/or supplemental ICA, as identified above and is acceptable to the Minister.			
Reviewer's Name: Phone #	Email:	Mail Routing Symbol:	
Signature:	Date:	NAPA Number:	

APPENDIX A-3 NORMAL CATEGORY ROTORCRAFT - CAR 527

BLOCK 1

Name of the applicant for the design change approval:

Aero Design Ltd.

Description of the design change:

Installation of External Attachment Provisions on Bell 206L Series

Certification Basis of design change and revision date:

FAR 27, Amendment 27-24

CAR Standard A527.1(c) Program showing how changes to supplemental ICA made by the applicant or by the manufacturers of products and appliances installed in the aeroplane pursuant to the design change will be distributed:

Section 0-3 of Supplemental ICA (ICA 493.90, Rev. 1)

CAR Standard 513.05 (1) (g) (iv): Installation Instructions:

Installation Drawing 49301

BLOCK 2

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.2 (a) Manual(s) (a) The Instructions for Continued Airworthiness must be in the form of a manual or manuals as appropriate for the quantity of data to be provided.	ICA ref: Bell 206L/407 Maintenance Manuals, BHT-206L-MM/BHT-407- MM	Supplemental ICA ref: Single Manual (ICA493.90)
A527.2 (b) Practical arrangement (b) The format of the manual or manuals must provide for a practical arrangement.	ICA ref: Bell 206L/407 Maintenance Manuals	Supplemental ICA ref: Arranged in ATA format
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		
A527.3 (a) Rotorcraft maintenance manual or section		
A527.3 (a) (1) (Introduction) (1) Introduction information that includes an explanation of the rotorcraft's features and data to the extent necessary for maintenance or preventive maintenance.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 1	Supplemental ICA ref: Section 0-1
A527.3 (a) (2) (Description) (2) A description of the rotorcraft and its systems and installations including its engines, rotors, and appliances.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 1	Supplemental ICA ref: Section 0-5

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (a) (3) Control & Operation (3) Basic control and operation information describing how the rotorcraft components and systems are controlled and how they operate, including any special procedures and limitations that apply.	ICA ref: N/A	Supplemental ICA ref: N/A
A527.3 (a) (4) Servicing (4) Servicing information that covers details regarding servicing points, capacities of tanks, reservoirs, types of fluids to be used, pressures applicable to the various systems, location of access panels for inspection and servicing, locations of lubrication points, lubricants to be used, equipment required for servicing, tow instructions and limitations, mooring, jacking, and levelling information.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 12	Supplemental ICA ref: N/A
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		
A527.3 (b) Maintenance Instructions. A527.3 (b) (1) Scheduling 1) Scheduling information for each part of the rotorcraft and its engines, auxiliary power units, rotors, accessories, instruments, and equipment that provides the recommended periods at which they should be cleaned, inspected, adjusted, tested, and lubricated, and the degree of inspection, the applicable wear tolerances, and work recommended at these periods. However, the applicant may refer to an accessory, instrument, or equipment manufacturer as the source of this information if the applicant shows that the item has an exceptionally high degree of complexity requiring specialized maintenance techniques, test equipment, or expertise. The recommended overhaul periods and necessary cross-references to the Airworthiness Limitations section of the manual must also be included. In addition, the applicant must include an inspection program that includes the frequency and extent of the inspections necessary to provide for the continued airworthiness of the rotorcraft.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (b) (2) Troubleshooting (2) Troubleshooting information describing probable malfunctions, how to recognize those malfunctions, and the remedial action for those malfunctions.	ICA ref: N/A	Supplemental ICA ref: N/A

MSI 53 - Review of Supplemental Instructions for Continued Airworthiness

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (b) (3) Removal/replacement (3) Information describing the order and method of removing and replacing products and parts with any necessary precautions to be taken.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 32	Supplemental ICA ref: Section 32-1 thru 32-4
A527.3 (b) (4) General (4) Other general procedural instructions including procedures for system testing during ground running, symmetry checks, weighing and determining the center of gravity, lifting and shoring, and storage limitations.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 7 and 8	Supplemental ICA ref: Section 32-5
A527.3 (c) Access (c) Diagrams of structural access plates and information needed to gain access for inspections when access plates are not provided.	ICA ref: N/A	Supplemental ICA ref: N/A
A527.3 (d) Special inspections (d) Details for the application of special inspection techniques including radiographic and ultrasonic testing where such processes are specified.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (e) Protective treatment (e) Information needed to apply protective treatments to the structure after inspection.	ICA ref: Bell Standard Practices Manual BHT-ALL-SPM, Chapter 3	Supplemental ICA ref: Section 5-3
A527.3 (f) Fasteners, torque values, etc (f) All data relative to structural fasteners such as identification, discard recommendations, and torque values.	ICA ref: Bell Standard Practices Manual BHT-ALL-SPM, Chapter 2	Supplemental ICA ref: Section 32-6
A527.3 (g) Special tools (g) A list of special tools needed.	ICA ref: N/A	Supplemental ICA ref: N/A

BLOCK 3

A527.4 AWL - Separate Section 1

The Instructions for Continued Airworthiness must

contain a section titled Airworthiness Lir segregated and clearly distinguishable f the document. This section must set for mandatory replacement time, structural interval, and related structural inspection approved under 527.571. If the Instructic Continued Airworthiness consist of mult documents, the section required by this must be included in the principal manual must contain a legible statement in a prolocation that reads: "The Airworthiness I section is approved by the Minister and maintenance required by any applicable or operating rule unless an alternative pubeen approved by the Minister."	rom the rest of th each inspection n procedure ons for iple paragraph II. This section ominent Limitations specifies a airworthiness	CA ref: Bell 206L/407 Mainter Manual, Chapter 4	nance Sup	oplemental ICA ref: Chapter 4
BLOCK 4 – Applicant Statement of	Compliance			
	The Supplemental ICA referenced above comprises the complete listing of supplemental ICA necessary to show compliance with the regulatory standard that supports this change in type design.			
Applicants Signature: Date: _25 June 2017				
Applicants Name: <u>Jeff Clarke</u> , Vi				
BLOCK 5 – Minister's Statement of Acceptability				
The design change is adequately supported by existing ICA and/or supplemental ICA, as identified above and is acceptable to the Minister.				
Reviewer's Name:	Phone #	Email:		Mail Routing Symbol:
Signature:		Date:		NAPA Number:

APPENDIX A-3 NORMAL CATEGORY ROTORCRAFT - CAR 527

BLOCK 1

Name of the applicant for the design change approval:

Aero Design Ltd.

Description of the design change:

Installation of Low Mounted Fixed Cargo Baskets on Bell 206L Series and 407

Certification Basis of design change and revision date:

FAR 27, Amendment 27-30

CAR Standard A527.1(c) Program showing how changes to supplemental ICA made by the applicant or by the manufacturers of products and appliances installed in the aeroplane pursuant to the design change will be distributed:

Section 0-3 of Supplemental ICA (ICA 492.90, Rev. 2)

Installation Drawing 49201, 60601

CAR Standard 513.05 (1) (g) (iv): Installation Instructions:

BLOCK 2

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.2 (a) Manual(s) (a) The Instructions for Continued Airworthiness must be in the form of a manual or manuals as appropriate for the quantity of data to be provided.	ICA ref: Bell 206L/407 Maintenance Manuals, BHT-206L-MM/BHT-407- MM	Supplemental ICA ref: Single Manual (ICA492.90)
A527.2 (b) Practical arrangement (b) The format of the manual or manuals must provide for a practical arrangement.	ICA ref: Bell 206L/407 Maintenance Manuals	Supplemental ICA ref: Arranged in ATA format
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		
A527.3 (a) Rotorcraft maintenance manual or section		
A527.3 (a) (1) (Introduction) (1) Introduction information that includes an explanation of the rotorcraft's features and data to the extent necessary for maintenance or preventive maintenance.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 1	Supplemental ICA ref: Section 0-1
A527.3 (a) (2) (Description) (2) A description of the rotorcraft and its systems and installations including its engines, rotors, and appliances.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 1	Supplemental ICA ref: Section 0-5, 0-6

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (a) (3) Control & Operation (3) Basic control and operation information describing how the rotorcraft components and systems are controlled and how they operate, including any special procedures and limitations that apply.	ICA ref: N/A	Supplemental ICA ref: N/A
A527.3 (a) (4) Servicing (4) Servicing information that covers details regarding servicing points, capacities of tanks, reservoirs, types of fluids to be used, pressures applicable to the various systems, location of access panels for inspection and servicing, locations of lubrication points, lubricants to be used, equipment required for servicing, tow instructions and limitations, mooring, jacking, and levelling information.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 12	Supplemental ICA ref: N/A
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		
A527.3 (b) Maintenance Instructions. A527.3 (b) (1) Scheduling 1) Scheduling information for each part of the rotorcraft and its engines, auxiliary power units, rotors, accessories, instruments, and equipment that provides the recommended periods at which they should be cleaned, inspected, adjusted, tested, and lubricated, and the degree of inspection, the applicable wear tolerances, and work recommended at these periods. However, the applicant may refer to an accessory, instrument, or equipment manufacturer as the source of this information if the applicant shows that the item has an exceptionally high degree of complexity requiring specialized maintenance techniques, test equipment, or expertise. The recommended overhaul periods and necessary cross-references to the Airworthiness Limitations section of the manual must also be included. In addition, the applicant must include an inspection program that includes the frequency and extent of the inspections necessary to provide for the continued airworthiness of the rotorcraft.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (b) (2) Troubleshooting (2) Troubleshooting information describing probable malfunctions, how to recognize those malfunctions, and the remedial action for those malfunctions.	ICA ref: N/A	Supplemental ICA ref: N/A

MSI 53 - Review of Supplemental Instructions for Continued Airworthiness

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (b) (3) Removal/replacement (3) Information describing the order and method of removing and replacing products and parts with any necessary precautions to be taken.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 25	Supplemental ICA ref: Section 25-1 thru 25-6
A527.3 (b) (4) General (4) Other general procedural instructions including procedures for system testing during ground running, symmetry checks, weighing and determining the center of gravity, lifting and shoring, and storage limitations.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 7 and 8	Supplemental ICA ref: Section 25-7
A527.3 (c) Access (c) Diagrams of structural access plates and information needed to gain access for inspections when access plates are not provided.	ICA ref: N/A	Supplemental ICA ref: N/A
A527.3 (d) Special inspections (d) Details for the application of special inspection techniques including radiographic and ultrasonic testing where such processes are specified.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (e) Protective treatment (e) Information needed to apply protective treatments to the structure after inspection.	ICA ref: Bell Standard Practices Manual BHT-ALL-SPM, Chapter 3	Supplemental ICA ref: Section 5-3
A527.3 (f) Fasteners, torque values, etc (f) All data relative to structural fasteners such as identification, discard recommendations, and torque values.	ICA ref: Bell Standard Practices Manual BHT-ALL-SPM, Chapter 2	Supplemental ICA ref: Section 25-8
A527.3 (g) Special tools (g) A list of special tools needed.	ICA ref: N/A	Supplemental ICA ref: N/A

BLOCK 3

A527.4 AWL - Separate Section 1

The Instructions for Continued Airworthiness must

contain a section titled Airworthiness Limitations that is segregated and clearly distinguishable from the rest of the document. This section must set forth each mandatory replacement time, structural inspection interval, and related structural inspection procedure approved under 527.571. If the Instructions for Continued Airworthiness consist of multiple documents, the section required by this paragraph must be included in the principal manual. This section must contain a legible statement in a prominent location that reads: "The Airworthiness Limitations section is approved by the Minister and specifies maintenance required by any applicable airworthiness or operating rule unless an alternative program has been approved by the Minister."	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 4	Supplemental ICA ref: Chapter 4
BLOCK 4 – Applicant Statement of Compliance		
The Supplemental ICA referenced above comprises that supports this change in type design. Applicants Signature: Applicants Name: Jeff Clarke, Vice President		Date: 25 June 2017
Applicants Name. Jen Glarke, Vice i resident	Acro Design Etd.	
BLOCK 5 – Minister's Statement of Acceptability		
The design change is adequately supported by existing ICA and/or supplemental ICA, as identified above and is acceptable to the Minister.		
Reviewer's Name: Phone #	Email:	Mail Routing Symbol:
Signature:	Date:	NAPA Number:

APPENDIX A-3 NORMAL CATEGORY ROTORCRAFT - CAR 527

BLOCK 1

Name of the applicant for the design change approval:

Aero Design Ltd.

Description of the design change:

Installation of High Mounted Fixed Cargo Basket on Bell 407

Certification Basis of design change and revision date:

FAR 27, Amendment 27-30

CAR Standard A527.1(c) Program showing how changes to supplemental ICA made by the applicant or by the manufacturers of products and appliances installed in the aeroplane pursuant to the design change will be distributed:

Section 0-3 of Supplemental ICA (ICA 606.90, Rev. 3)

CAR Standard 513.05 (1) (g) (iv): Installation Instructions:

Installation Drawing 60603

BLOCK 2

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.2 (a) Manual(s) (a) The Instructions for Continued Airworthiness must be in the form of a manual or manuals as appropriate for the quantity of data to be provided.	ICA ref: Bell 206L/407 Maintenance Manuals, BHT-206L-MM/BHT-407- MM	Supplemental ICA ref: Single Manual (ICA606.90)
A527.2 (b) Practical arrangement (b) The format of the manual or manuals must provide for a practical arrangement.	ICA ref: Bell 206L/407 Maintenance Manuals	Supplemental ICA ref: Arranged in ATA format
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		
A527.3 (a) Rotorcraft maintenance manual or section		
A527.3 (a) (1) (Introduction) (1) Introduction information that includes an explanation of the rotorcraft's features and data to the extent necessary for maintenance or preventive maintenance.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 1	Supplemental ICA ref: Section 0-1
A527.3 (a) (2) (Description) (2) A description of the rotorcraft and its systems and installations including its engines, rotors, and appliances.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 1	Supplemental ICA ref: Section 0-5, 0-6

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (a) (3) Control & Operation (3) Basic control and operation information describing how the rotorcraft components and systems are controlled and how they operate, including any special procedures and limitations that apply.	ICA ref: N/A	Supplemental ICA ref: N/A
A527.3 (a) (4) Servicing (4) Servicing information that covers details regarding servicing points, capacities of tanks, reservoirs, types of fluids to be used, pressures applicable to the various systems, location of access panels for inspection and servicing, locations of lubrication points, lubricants to be used, equipment required for servicing, tow instructions and limitations, mooring, jacking, and levelling information.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 12	Supplemental ICA ref: N/A
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		
A527.3 (b) Maintenance Instructions. A527.3 (b) (1) Scheduling 1) Scheduling information for each part of the rotorcraft and its engines, auxiliary power units, rotors, accessories, instruments, and equipment that provides the recommended periods at which they should be cleaned, inspected, adjusted, tested, and lubricated, and the degree of inspection, the applicable wear tolerances, and work recommended at these periods. However, the applicant may refer to an accessory, instrument, or equipment manufacturer as the source of this information if the applicant shows that the item has an exceptionally high degree of complexity requiring specialized maintenance techniques, test equipment, or expertise. The recommended overhaul periods and necessary cross-references to the Airworthiness Limitations section of the manual must also be included. In addition, the applicant must include an inspection program that includes the frequency and extent of the inspections necessary to provide for the continued airworthiness of the rotorcraft.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (b) (2) Troubleshooting (2) Troubleshooting information describing probable malfunctions, how to recognize those malfunctions, and the remedial action for those malfunctions.	ICA ref: N/A	Supplemental ICA ref: N/A

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (b) (3) Removal/replacement (3) Information describing the order and method of removing and replacing products and parts with any necessary precautions to be taken.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 25	Supplemental ICA ref: Section 25-1 thru 25-6
A527.3 (b) (4) General (4) Other general procedural instructions including procedures for system testing during ground running, symmetry checks, weighing and determining the center of gravity, lifting and shoring, and storage limitations.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 7 and 8	Supplemental ICA ref: Section 25-7
A527.3 (c) Access (c) Diagrams of structural access plates and information needed to gain access for inspections when access plates are not provided.	ICA ref: N/A	Supplemental ICA ref: N/A
A527.3 (d) Special inspections (d) Details for the application of special inspection techniques including radiographic and ultrasonic testing where such processes are specified.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (e) Protective treatment (e) Information needed to apply protective treatments to the structure after inspection.	ICA ref: Bell Standard Practices Manual BHT-ALL-SPM, Chapter 3	Supplemental ICA ref: Section 5-3
A527.3 (f) Fasteners, torque values, etc (f) All data relative to structural fasteners such as identification, discard recommendations, and torque values.	ICA ref: Bell Standard Practices Manual BHT-ALL-SPM, Chapter 2	Supplemental ICA ref: Section 25-8
A527.3 (g) Special tools (g) A list of special tools needed.	ICA ref: N/A	Supplemental ICA ref: N/A

BLOCK 3

A527.4 AWL - Separate Section 1

Supplemental ICA ref: Chapter 4			
BLOCK 4 – Applicant Statement of Compliance			
The Supplemental ICA referenced above comprises the complete listing of supplemental ICA necessary to show compliance with the regulatory standard that supports this change in type design.			
Applicants Signature:			
Applicants Name: Jell Clarke, Vice Flesident - Aero Design Ltd.			
BLOCK 5 – Minister's Statement of Acceptability			
The design change is adequately supported by existing ICA and/or supplemental ICA, as identified above and is acceptable to the Minister.			
Mail Routing Symbol:			
NAPA Number:			

APPENDIX A-3 NORMAL CATEGORY ROTORCRAFT - CAR 527

BLOCK 1

Name of the applicant for the design change approval:

Aero Design Ltd.

Description of the design change:

Installation of Auxiliary Step on Bell 206B, 206L Series, 407

Certification Basis of design change and revision date:

FAR 27, Amendment 27-30

CAR Standard A527.1(c) Program showing how changes to supplemental ICA made by the applicant or by the manufacturers of products and appliances installed in the aeroplane pursuant to the design change will be distributed:

Section 0-3 of Supplemental ICA (ICA 623.91, Rev. 2)

CAR Standard 513.05 (1) (g) (iv): Installation Instructions:

Installation Drawing 62302

BLOCK 2

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.2 (a) Manual(s) (a) The Instructions for Continued Airworthiness must be in the form of a manual or manuals as appropriate for the quantity of data to be provided.	ICA ref: Bell 206L/407 Maintenance Manuals, BHT-206L-MM/BHT-407- MM	Supplemental ICA ref: Single Manual (ICA623.91)
A527.2 (b) Practical arrangement (b) The format of the manual or manuals must provide for a practical arrangement.	ICA ref: Bell 206L/407 Maintenance Manuals	Supplemental ICA ref: Arranged in ATA format
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		
A527.3 (a) Rotorcraft maintenance manual or section		
A527.3 (a) (1) (Introduction) (1) Introduction information that includes an explanation of the rotorcraft's features and data to the extent necessary for maintenance or preventive maintenance.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 1	Supplemental ICA ref: Section 0-1
A527.3 (a) (2) (Description) (2) A description of the rotorcraft and its systems and installations including its engines, rotors, and appliances.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 1	Supplemental ICA ref: Section 0-5

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (a) (3) Control & Operation (3) Basic control and operation information describing how the rotorcraft components and systems are controlled and how they operate, including any special procedures and limitations that apply.	ICA ref: N/A	Supplemental ICA ref: N/A
A527.3 (a) (4) Servicing (4) Servicing information that covers details regarding servicing points, capacities of tanks, reservoirs, types of fluids to be used, pressures applicable to the various systems, location of access panels for inspection and servicing, locations of lubrication points, lubricants to be used, equipment required for servicing, tow instructions and limitations, mooring, jacking, and levelling information.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 12	Supplemental ICA ref: N/A
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		
A527.3 (b) Maintenance Instructions. A527.3 (b) (1) Scheduling 1) Scheduling information for each part of the rotorcraft and its engines, auxiliary power units, rotors, accessories, instruments, and equipment that provides the recommended periods at which they should be cleaned, inspected, adjusted, tested, and lubricated, and the degree of inspection, the applicable wear tolerances, and work recommended at these periods. However, the applicant may refer to an accessory, instrument, or equipment manufacturer as the source of this information if the applicant shows that the item has an exceptionally high degree of complexity requiring specialized maintenance techniques, test equipment, or expertise. The recommended overhaul periods and necessary cross-references to the Airworthiness Limitations section of the manual must also be included. In addition, the applicant must include an inspection program that includes the frequency and extent of the inspections necessary to provide for the continued airworthiness of the rotorcraft.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (b) (2) Troubleshooting (2) Troubleshooting information describing probable malfunctions, how to recognize those malfunctions, and the remedial action for those malfunctions.	ICA ref: N/A	Supplemental ICA ref: N/A

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (b) (3) Removal/replacement (3) Information describing the order and method of removing and replacing products and parts with any necessary precautions to be taken.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 25	Supplemental ICA ref: Section 25-1, 25-2
A527.3 (b) (4) General (4) Other general procedural instructions including procedures for system testing during ground running, symmetry checks, weighing and determining the center of gravity, lifting and shoring, and storage limitations.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 7 and 8	Supplemental ICA ref: Section 25-3
A527.3 (c) Access (c) Diagrams of structural access plates and information needed to gain access for inspections when access plates are not provided.	ICA ref: N/A	Supplemental ICA ref: N/A
A527.3 (d) Special inspections (d) Details for the application of special inspection techniques including radiographic and ultrasonic testing where such processes are specified.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (e) Protective treatment (e) Information needed to apply protective treatments to the structure after inspection.	ICA ref: Bell Standard Practices Manual BHT-ALL-SPM, Chapter 3	Supplemental ICA ref: Section 5-3
A527.3 (f) Fasteners, torque values, etc (f) All data relative to structural fasteners such as identification, discard recommendations, and torque values.	ICA ref: Bell Standard Practices Manual BHT-ALL-SPM, Chapter 2	Supplemental ICA ref: Section 25-4
A527.3 (g) Special tools (g) A list of special tools needed.	ICA ref: N/A	Supplemental ICA ref: N/A

BLOCK 3

A527.4 AWL - Separate Section 1

The Instructions for Continued Airworthiness must contain a section titled Airworthiness Limitations that is

segregated and clearly distinguishable from the rest of the document. This section must set forth each mandatory replacement time, structural inspection interval, and related structural inspection procedure approved under 527.571. If the Instructions for Continued Airworthiness consist of multiple documents, the section required by this paragraph must be included in the principal manual. This section must contain a legible statement in a prominent location that reads: "The Airworthiness Limitations section is approved by the Minister and specifies maintenance required by any applicable airworthiness or operating rule unless an alternative program has been approved by the Minister."	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 4	Supplemental ICA ref: Chapter 4		
BLOCK 4 – Applicant Statement of Compliance				
The Supplemental ICA referenced above comprises the complete listing of supplemental ICA necessary to show compliance with the regulatory standard that supports this change in type design.				
Applicants Signature: Date: _25 June 2017				
Applicants Name: Jeff Clarke, Vice President - Aero Design Ltd.				
BLOCK 5 – Minister's Statement of Acceptability				
The design change is adequately supported by existing ICA and/or supplemental ICA, as identified above and is acceptable to the Minister.				
Reviewer's Name: Phone #	Email:	Mail Routing Symbol:		
Signature: Date:		NAPA Number:		



Department of Transport

Supplemental Type Certificate

This approval is issued to:

Aero Design Ltd.

2013 39th Avenue North East

Calgary, Alberta

Canada T2E 6R7

Responsible Office:

Aircraft/Engine Type or Model:

Canadian Type Certificate or Equivalent:

Description of Type Design Change:

SH00-48 Number:

Issue No.:

Approval Date:

December 08, 2000

Issue Date:

November 30, 2011

Prairie and Northern

BELL 206L, 206L-1, 206L-3, 206L-4, 407

BELL 206L, 206L-1, 206L-3, 206L-4, 407 H-92

Installation of Cargo Basket / External Attachment

Provisions/Auxiliary step/Quick Release Step

Installation/Operating Data, Required Equipment and Limitations:

Installation: See Continuation Sheets

Operation: See Continuation Sheets

Maintenance: See Continuation Sheets

Certification Basis: See Continuation Sheets

... See Contination Sheets Pages 2,3,4



Conditions: This approval is only applicable to the type/model of aeronautical product specified therein. Prior to incorporating this modification, the installer shall establish that the interrelationship between this change and any other modification(s) incorporated will not adversely affect the airworthiness of the modified product.

For Minister of Transport

Janada a

Number: SH00-48 Issue 9

NOTE: THIS ADDENDUM SHALL REMAIN PART OF THE CERTIFICATE REFERRED TO THEREIN.

Bell 407 only:

Configuration	Installation	Operation	Maintenance
A-External	DCL700 Rev 1,	FMS700.91 Rev 0,	ICA700.90 Rev 0,
Attachment	22 September	4 May 2006*	20 April 2006 **
Provisions (may	2007*		
remain installed if			
basket removed)			
B- Low Mounted	DCL606 Rev 3,	FMS606.01 Rev 2,	ICA492.90 Rev 1,
Fixed (High Skid	28 September	28 September	28 September
Gear)	2007*	2007*	2007**
C-High Mounted	DCL606-1,	FMS606.01 Rev 1,	MI606.01 Rev 2,
Fixed***	Revision 1, 13	1 February 2005*	19 July 2004**
	December 2006		
D -Low Mounted	DCL701 Rev 4,	FMS701.90 Rev 3,	ICA698.90 Rev 2,
Quick Release (High	27 October 2011*	26 October 2007*	25 October 2011**
Skid Gear) Model 698			
E-High Mounted	DCL766-1 Rev 0,	FMS766.91 Rev 0,	ICA766.90 Rev 0,
Quick Release***	26 September	30 October 2007*	26 September
	2007*		2007**
F-Low Mounted Quick	DCL945-1 Rev 0,	FMS701.90 Rev 3,	ICA698.90 Rev 2,
Release (High Skid	27 October 2011*	26 October 2011*	25 October 2011**
Gear) Model 945			
G-Low Mounted	DCL946-1 Rev 0,	FMS701.90 Rev 3,	ICA698.90 Rev 2,
Quick Release (High	27 October 2011*	26 October 2011*	25 October 2011**
Skid Gear) Model 946			

^{*}or later approved revision

^{**} or later accepted revision

^{***} approved emergency push out windows or an approved sliding door are required on the side of the helicopter that a basket is installed on if passengers are to be carried.

Number: SH00-48 Issue 9

NOTE: THIS ADDENDUM SHALL REMAIN PART OF THE CERTIFICATE REFERRED TO THEREIN.

Bell 206L, L-1, L-3, L-4 only:

Configuration	Installation	Operation	Maintenance
A-Attachment	DCL493 Rev 6, 10	FMS493.01 Rev 0,	ICA493.90 Rev 0, 4
Provisions (may	May 2006*	19 May 2002*	May 2006**
remain installed if			
basket removed)			
B- Low Mounted	DCL492 Rev 6, 28	FMS492.01 Rev 2,	ICA492.90 Rev 1,
Fixed (High Skid	September 2007*	28 September 2007*	28 September
Gear)			2007**
C- Low Mounted	DCL702 Rev 3, 27	FMS702.90 Rev 3,	ICA698.90 Rev 2,
Quick Release	October 2011*	26 October 2011*	25 October 2011**
(High Skid Gear)			
Model 698			
D-High Mounted	DCL766-1 Rev 1,	FMS766.92 Rev 0,	ICA766.90 Rev 0,
Quick Release ***	23 September 2008*	30 October 2007*	26 September
			2007**
E-Low Mounted	DCL945-2 Rev 0,	FMS702.90 Rev 3,	ICA698.90 Rev 2,
Quick Release	27 October 2011*	26 October 2011*	25 October 2011**
(High Skid Gear)			
Model 945			
F-Low Mounted	DCL946-2 Rev 0,	FMS702.90 Rev 3,	ICA698.90 Rev 2,
Quick Release	27 October 2011*	26 October 2011*	25 October 2011**
(High Skid Gear)			
Model 946			



helicopter that a basket is installed on if passengers are to be carried.

Number: SH00-48 Issue 9

NOTE: THIS ADDENDUM SHALL REMAIN PART OF THE CERTIFICATE REFERRED TO THEREIN.

Bell 206 L series and Bell 407:

Configuration	Installation	Operation	Maintenance
Auxiliary Step	DCL623 Rev 4, 30	n/a	ICA623.91 Rev 1,
Installation	November 2010*		30 November
(optional)			2010**
Basket Modification	DCL704 Rev 7, 27	***	***
(options)	October 2011*		
Quick Release Step	DCL800-2 Rev 0, 2	Per applicable	ICA800.90 Rev 2, 2
(optional with:	December 2008*	installed basket	December 2008**
407 configs.D,F,G		configuration if	
206L configs.C,E,F)		installed.	

^{*}or later approved revision.

Certification Basis: The certifications basis for affected paragraphs is as follows:

Bell 407 Configurations.

All configurations	As per TCDS H-92 for the Bell 407, FAR
	27 amendment 27-30

Bell 206L Series Configurations

A - Attachment Provisions	FAR Part 27 amendment 27-24 (206-L4
B- Low mount Fixed	basis)
All other 206L series configurations	FAR Part 27 amendment 27-30 (407 basis)



^{**}or later accepted revision.

^{***} FMS and ICA required by the basket configuration remain applicable.





1100-9700 Jasper Avenue Edmonton, Alberta T5J 4E6

December 01, 2011

Your file Votre reference

945 946

Our file Notre reference

C-11-0786 SH00-48

Aero Design Ltd. 2013 39th Avenue North East Calgary, Alberta Canada, T2E 6R7

ATTENTION: EDWARD BURGOIN - DAR 290M

Dear Sirs:

SUBJECT:

REVISION TO SUPPLEMENTAL TYPE CERTIFICATE NO. SH00-48 - ISSUE 9

DATED NOVEMBER 30, 2011 - INSTALLATION OF CARGO BASKET/

EXTERNAL ATTACHMENT PROVISIONS/AUXILIARY STEP/QUICK RELEASE STEP - BELL 206L, 206L1, 206L3, 206L4, 407 ISSUED TO AERO DESIGN

LTD.

This Supplemental Type Certificate (STC) is issued in response to your application. Included with the STC are the documents bearing the original Transport Canada signatures.

The transfer of this SH00-48 in the name of another person requires the prior approval from the Minister in accordance with Canadian Aviation Regulations (CAR) 521.357.

To accomplish this modification, the requirements of CAR 561 apply if parts are manufactured.

Embodiment of this modification is considered to be a maintenance activity and the requirements of CAR 571.06(4) will apply.

An STC holder is required to report any service problem experienced with their product. Therefore, should you become aware of any defect, malfunction or failure resulting from the design change, it is your responsibility to submit a Service Difficulty Report to Transport Canada in accordance with CAR V, Subpart 91. Other obligations as a Design Approval Document Holder are contained in CAR 521, Division VIII.

Yours truly,

J. Staal

Engineering Technologist, Engineering

Civil Aviation

Prairie and Northern Region

Phone: 780-495-5227 Facs:

780-495-7963

Encl.



APPENDIX A-3 NORMAL CATEGORY ROTORCRAFT - CAR 527

BLOCK 1

Name of the applicant for the design change approval:

Aero Design Ltd.

Description of the design change:

Installation of Quick Release Cargo Baskets on Bell 206L Series

Certification Basis of design change and revision date:

FAR 27, Amendment 27-30

CAR Standard A527.1(c) Program showing how changes to supplemental ICA made by the applicant or by the manufacturers of products and appliances installed in the aeroplane pursuant to the design change will be distributed:

Section 0-3 of Supplemental ICA (ICA 698.90)

Installation Drawing 70101, 70102, 70201, 70202, 94501, 94502, 94601, 94602

CAR Standard 513.05 (1) (g) (iv): Installation Instructions:

CAN Standard 516.65 (1) (g) (iv). Instandard instructions

BLOCK 2

Note: Enter "N/A" when no supplemental ICA are needed.

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3			
A527.2 (a) Manual(s) (a) The Instructions for Continued Airworthiness must be in the form of a manual or manuals as appropriate for the quantity of data to be provided.	ICA ref: Bell 206L/407 Maintenance Manuals, BHT-206L-MM/BHT-407- MM	Supplemental ICA ref: Single Manual (ICA698.90)			
A527.2 (b) Practical arrangement (b) The format of the manual or manuals must provide for a practical arrangement.	ICA ref: Bell 206L/407 Maintenance Manuals	Supplemental ICA ref: Arranged in ATA format			
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:					
A527.3 (a) Rotorcraft maintenance manual or section					
A527.3 (a) (1) (Introduction) (1) Introduction information that includes an explanation of the rotorcraft's features and data to the extent necessary for maintenance or preventive maintenance.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 1	Supplemental ICA ref: Section 0-1			
A527.3 (a) (2) (Description) (2) A description of the rotorcraft and its systems and installations including its engines, rotors, and appliances.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 1	Supplemental ICA ref: Section 0-5, 0-6			

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (a) (3) Control & Operation (3) Basic control and operation information describing how the rotorcraft components and systems are controlled and how they operate, including any special procedures and limitations that apply.	ICA ref: N/A	Supplemental ICA ref: N/A
A527.3 (a) (4) Servicing (4) Servicing information that covers details regarding servicing points, capacities of tanks, reservoirs, types of fluids to be used, pressures applicable to the various systems, location of access panels for inspection and servicing, locations of lubrication points, lubricants to be used, equipment required for servicing, tow instructions and limitations, mooring, jacking, and levelling information.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 12	Supplemental ICA ref: N/A
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		
A527.3 (b) Maintenance Instructions. A527.3 (b) (1) Scheduling 1) Scheduling information for each part of the rotorcraft and its engines, auxiliary power units, rotors, accessories, instruments, and equipment that provides the recommended periods at which they should be cleaned, inspected, adjusted, tested, and lubricated, and the degree of inspection, the applicable wear tolerances, and work recommended at these periods. However, the applicant may refer to an accessory, instrument, or equipment manufacturer as the source of this information if the applicant shows that the item has an exceptionally high degree of complexity requiring specialized maintenance techniques, test equipment, or expertise. The recommended overhaul periods and necessary cross-references to the Airworthiness Limitations section of the manual must also be included. In addition, the applicant must include an inspection program that includes the frequency and extent of the inspections necessary to provide for the continued airworthiness of the rotorcraft.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (b) (2) Troubleshooting (2) Troubleshooting information describing probable malfunctions, how to recognize those malfunctions, and the remedial action for those malfunctions.	ICA ref: N/A	Supplemental ICA ref: N/A

MSI 53 – Review of Supplemental Instructions for Continued Airworthiness

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3		
A527.3 (b) (3) Removal/replacement (3) Information describing the order and method of removing and replacing products and parts with any necessary precautions to be taken.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 25	Supplemental ICA ref: Section 25-1 thru 25-7		
A527.3 (b) (4) General (4) Other general procedural instructions including procedures for system testing during ground running, symmetry checks, weighing and determining the center of gravity, lifting and shoring, and storage limitations.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 7 and 8	Supplemental ICA ref: Section 25-8		
A527.3 (c) Access (c) Diagrams of structural access plates and information needed to gain access for inspections when access plates are not provided.	ICA ref: N/A	Supplemental ICA ref: N/A		
A527.3 (d) Special inspections (d) Details for the application of special inspection techniques including radiographic and ultrasonic testing where such processes are specified.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1		
A527.3 (e) Protective treatment (e) Information needed to apply protective treatments to the structure after inspection.	ICA ref: Bell Standard Practices Manual BHT-ALL-SPM, Chapter 3	Supplemental ICA ref: Section 5-3		
A527.3 (f) Fasteners, torque values, etc (f) All data relative to structural fasteners such as identification, discard recommendations, and torque values.	ICA ref: Bell Standard Practices Manual BHT-ALL-SPM, Chapter 2	Supplemental ICA ref: Section 25-9		
A527.3 (g) Special tools (g) A list of special tools needed.	ICA ref: N/A	Supplemental ICA ref: N/A		

BLOCK 3

Note: The statement in block 5 does not constitute an approval of the Airworthiness Limitations Section. Airworthiness Limitations differ from other maintenance tasks, in that they are mandatory, as a direct condition of the approval of the type design. They are therefore referenced directly in the approval document itself. However, they must also be included in the Supplemental Instructions for Continued Airworthiness.

A527.4 AWL - Separate Section 1 The Instructions for Continued Airworthiness must contain a section titled Airworthiness Limitations that is segregated and clearly distinguishable from the rest of the document. This section must set forth each mandatory replacement time, structural inspection interval, and related structural inspection procedure approved under 527.571. If the Instructions for Continued Airworthiness consist of multiple documents, the section required by this paragraph must be included in the principal manual. This section must contain a legible statement in a prominent location that reads: "The Airworthiness Limitations section is approved by the Minister and specifies maintenance required by any applicable airworthiness or operating rule unless an alternative program has been approved by the Minister."	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 4	Supplemental ICA ref: Chapter 4
---	---	---------------------------------

BLOCK 4 – Applicant Statement of Compliance

The Supplemental ICA referenced above comprises the complete listing of supplemental ICA necessary to show compliance with the regulatory standard that supports this change in type design.
Applicants Signature:Date:Date:
Applicants Name: E. Burgoin, P.Eng, DAR 290M
LOCK 5 – Minister's Statement of Acceptability
The design change is adequately supported by existing ICA and/or supplemental ICA, as identified above and is acceptable to the Minister.
Reviewer's Name: TACK STAAL Phone # 780-495-5997 Email: Tack Staal Mail Routing Symbol: RAED
Signature: Date: 201 NOU 281 Store Transcription NAPA Number
(ICA 698.90 Rev 2 25 OCT ZOII) C-11-0786

APPENDIX A-3 NORMAL CATEGORY ROTORCRAFT - CAR 527

BLOCK 1

Name of the applicant for the design change approval:

Aero Design Ltd.

Description of the design change:

Installation of Auxiliary Step on Bell 206L Series & 407

Certification Basis of design change and revision date:

FAR 27, Amendment 27-30

CAR Standard A527.1(c) Program showing how changes to supplemental ICA made by the applicant or by the manufacturers of products and appliances installed in the aeroplane pursuant to the design change will be distributed:

Section 0-3 of Supplemental ICA (ICA 623.91)

Installation Drawing 62302

CAR Standard 513.05 (1) (g) (iv): Installation Instructions:

BLOCK 2

Note: Enter "NA" when no supplemental ICA are needed.

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3		
A527.2 (a) Manual(s) (a) The Instructions for Continued Airworthiness must be in the form of a manual or manuals as appropriate for the quantity of data to be provided.	ICA ref: Bell 206L Series/407Maintenance Manuals BHT-206L-MM, BHT-407-MM	Supplemental ICA ref: Single Manual (ICA827.93)		
A527.2 (b) Practical arrangement (b) The format of the manual or manuals must provide for a practical arrangement.	ICA ref: Bell 206L Series/407Maintenance Manual	Supplemental ICA ref: Arranged in ATA format		
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:				
A527.3 (a) Rotorcraft maintenance manual or section				
A527.3 (a) (1) (Introduction) (1) Introduction information that includes an explanation of the rotorcraft's features and data to the extent necessary for maintenance or preventive maintenance.	ICA ref: Bell 206L Series/ 407Maintenance Manual, Chapter 1	Supplemental ICA ref: Section 0-1		
A527.3 (a) (2) (Description) (2) A description of the rotorcraft and its systems and installations including its engines, rotors, and appliances.	ICA ref: Bell 206L Series/ 407Maintenance Manual, Chapter 1	Supplemental ICA ref: Section 0-5		

MSI 53 - Review of Supplemental Instructions for Continued Airworthiness

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (a) (3) Control & Operation (3) Basic control and operation information describing how the rotorcraft components and systems are controlled and how they operate, including any special procedures and limitations that apply.	ICA ref: N/A	Supplemental ICA ref: N/A
A527.3 (a) (4) Servicing (4) Servicing information that covers details regarding servicing points, capacities of tanks, reservoirs, types of fluids to be used, pressures applicable to the various systems, location of access panels for inspection and servicing, locations of lubrication points, lubricants to be used, equipment required for servicing, tow instructions and limitations, mooring, jacking, and levelling information.	ICA ref: Bell 206L Series/ 407Maintenance Manual, Chapter 12	Supplemental ICA ref: N/A
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		
A527.3 (b) Maintenance Instructions. A527.3 (b) (1) Scheduling 1) Scheduling information for each part of the rotorcraft and its engines, auxiliary power units, rotors, accessories, instruments, and equipment that provides the recommended periods at which they should be cleaned, inspected, adjusted, tested, and lubricated, and the degree of inspection, the applicable wear tolerances, and work recommended at these periods. However, the applicant may refer to an accessory, instrument, or equipment manufacturer as the source of this information if the applicant shows that the item has an exceptionally high degree of complexity requiring specialized maintenance techniques, test equipment, or expertise. The recommended overhaul periods and necessary cross-references to the Airworthiness Limitations section of the manual must also be included. In addition, the applicant must include an inspection program that includes the frequency and extent of the inspections necessary to provide for the continued airworthiness of the rotorcraft.	ICA ref: Bell 206L Series/ 407Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (b) (2) Troubleshooting (2) Troubleshooting information describing probable malfunctions, how to recognize those malfunctions, and the remedial action for those malfunctions.	ICA ref: N/A	Supplemental ICA ref: N/A

MSI 53 - Review of Supplemental Instructions for Continued Airworthiness

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3		
A527.3 (b) (3) Removal/replacement (3) Information describing the order and method of removing and replacing products and parts with any necessary precautions to be taken.	ICA ref: Bell 206L Series/ 407Maintenance Manual, Chapter 25	Supplemental ICA ref: Section 25-1 and 25-2		
A527.3 (b) (4) General (4) Other general procedural instructions including procedures for system testing during ground running, symmetry checks, weighing and determining the center of gravity, lifting and shoring, and storage limitations.	ICA ref: Bell 206L Series/ 407Maintenance Manual, Chapter 7 and 8	Supplemental ICA ref: Section 25-3		
A527.3 (c) Access (c) Diagrams of structural access plates and information needed to gain access for inspections when access plates are not provided.	ICA ref: N/A	Supplemental ICA ref: N/A		
A527.3 (d) Special inspections (d) Details for the application of special inspection techniques including radiographic and ultrasonic testing where such processes are specified.	ICA ref: Bell 206L Series/407Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1		
A527.3 (e) Protective treatment (e) Information needed to apply protective treatments to the structure after inspection.	ICA ref: Bell Standard Practices Manual BHT-ALL-SPM, Chapter 3 & 4	Supplemental ICA ref: Section 5-3		
A527.3 (f) Fasteners, torque values, etc (f) All data relative to structural fasteners such as identification, discard recommendations, and torque values.	ICA ref: Bell Standard Practices Manual BHT-ALL-SPM, Chapter 2	Supplemental ICA ref: Section 25-4		
A527.3 (g) Special tools (g) A list of special tools needed.	ICA ref: N/A	Supplemental ICA ref: N/A		

BLOCK 3

Note: The statement in block 5 does not constitute an approval of the Airworthiness Limitations Section. Airworthiness Limitations differ from other maintenance tasks, in that they are mandatory, as a direct condition of the approval of the type design. They are therefore referenced directly in the approval document itself. However, they must also be included in the Supplemental Instructions for Continued Airworthiness.

A527.4 AWL - Separate Section 1 The Instructions for Continued Airworthiness must contain a section titled Airworthiness Limitations that is segregated and clearly distinguishable from the rest of the document. This section must set forth each mandatory replacement time, structural inspection interval, and related structural inspection procedure ICA ref: Bell 206L approved under 527.571. If the Instructions for Continued Airworthiness consist of multiple Series/407Maintenance Manual, Supplemental ICA ref: Section 4 documents, the section required by this paragraph Chapter 4 must be included in the principal manual. This section must contain a legible statement in a prominent location that reads: "The Airworthiness Limitations section is approved by the Minister and specifies maintenance required by any applicable airworthiness or operating rule unless an alternative program has been approved by the Minister."

BLOCK 4 – Applicant Statement of Compliance

The Supplemental ICA referenced above comprises the complete listing of supplemental ICA necessary to show complian	nce with the regulatory standard
that supports this change in type design.	,
Applicants Signature:	_ Date: <u>May 5, 2010</u>
Applicants Name: E. Burgoin, P.Eng, DAR 290M	
BLOCK 5 – Minister's Statement of Acceptability	
The design change is adequately supported by existing ICA and/or supplemental ICA, as identified above and is acceptable	le to the Minister.
Jack, Staal	0.000
Reviewer's Name: yack staal Phone # 780 - 495 - 5227 Email: @ Mail Routing Symbol: _	RAED
te,ge,ca	
Signature: Date: 2011 NOV 30	NAPA Number
() ICA 623.91, Rev 1 30 NOU ZOID)	C-11-0786

AIRWORTHINESS REQUIREMENTS COMPLIANCE PROGRAM

Page 1 of 3 CP945

APPLICANT: AERO Design Ltd. 2013 39th Avenue NE Calgary, Alberta, T2E 6R7

DATE: 20 September 2011

REV. No. 0

MAKE: Bell Helicopter

MODEL: 206L Series, 407

REGISTRATION: All Applicable

SERIAL No.: All Applicable

30 Loads - Inertia Loads

(If other than applicant)

CORRESPONDANCE TO:

NATURE OF WORK: Installation of Side-Mounted External Cargo Basket

27.301

MODEL CERTIFICATION BASIS: FAR 27, Amendment 27-30, with exceptions as noted below. (Bell 407, highest of 206L Series and 407)

MODIFICATION CERTIFICATION BASIS: FAR 27, Amendment 27-30, with exceptions as noted below.

Airworthiness Requirement	,	Subject for Compliance or Documentary Proof	Form of Substantiation	DOT DAR Comments
Paragraph	Amd		romi of Substantiation	DOT DAR Comments
Subpart B –	Flight			
27.27 27.29 27.51 27.65 27.71 27.75 27.141	30 30 30 30 30 30 30	Centre of Gravity Limits Empty Weight and Corresponding C of G Takeoff Climb: All Engines Operating Gliding Performance Landing Flight Characteristics – General	N/A Data specified on inst'n drawing Flight Test	No change from Type Approval. X X X X X X X X X X X X X X X X X X
27.143 27.151 27.161 27.171 27.173 27.175 27.177 27.241 27.251	30 30 30 30 1 1 30 30 30	Controllability and Maneuverability Flight controls Trim Stability – General Longitudinal Stability Demonstration of Longitudinal Stability Static Directional Stability Ground Resonance Vibration	Flight Test	Flight tests to be performed on Bell 407 in accordance with FTP945.03 and by Transport Canada Flight Test X X X X X X X X X X X X
Subpart C -	Streng	th Requirements		AS
27.301	30	Loads – Air Drag Loads	Analysis	× NE

Compliance with 27.337 and 27.561

AIRWORTHINESS REQUIREMENTS COMPLIANCE PROGRAM

Airworthiness			D (0)			
Requirement		Subject for Compliance or Documentary Proof	Form of Substantiation	DOT	DAR	Comments
Paragraph	Amd	t.			0.0	
27.303 27.305 27.307 27.337(a) 27.471 27.473	30 30 30 30 30 30 30	Factor of Safety Strength and Deformation Proof of Structure Limit Maneuvering Load Factor – Positive Ground Loads - General Ground Loading Conditions and Assumptions Ground Loading Conditions – Landing Gear with Skids	Analysis Analysis and Test iaw AC 43.13-1A Analysis and Test iaw AC 43.13-1A Analysis and Test iaw AC 43.13-1A N/A N/A N/A		×××××××××××××××××××××××××××××××××××××××	Critical load factor in downward direction. No change from STC approved configuration. No change to assumptions used for Type Approved configuration. Loads from the cargo basket on the landing gear fittings do not use skid tubes or cross
27.547 27.561 27.561(b)3(i) 27.561(b)3(ii) 27.561(b)3(iii) 27.561(b)3(iv)	30 30 24 24 24 24	Main Rotor Structure Emergency Landing Conditions Emergency Landing Conditions – Up Emergency Landing Conditions – Fwd Emergency Landing Conditions – Side Emergency Landing Conditions – Down	Flight Test Analysis and Test iaw AC 43.13-1A Analysis and Test iaw AC 43.13-1A N/A Analysis and Test iaw AC 43.13-1A Compliance with 27.337	×9	×	tubes in load path. See comments for flight test above PER HQ F Forward deflection or failure of basket poses no threat to occupants. 27.337 Maneuvering Load is Critical.
Subpart D - D	esigr	and Construction				
27.601 27.603 27.605 27.609 27.611 27.613	30 30 30 30 30 30 30	Design Materials Fabrication Methods Protection of Structure Inspection Provisions Material Strength Properties and Design Values Fitting Factor	Drawings Drawings Drawings Drawings Drawings Values used as per Mil-Hdbk-5H Analysis		X X X X X	Design is conventional. Materials used are specified in Mil-Hdbk-5H. Design is conventional. Design is easy to inspect.
27.725 27.727	30 30	Limit Drop Test Reserve Energy Absorption Drop Test	N/A N/A			No change in ground clearance from STC approved configuration
27.783 27.787(a) 27.787(b) 27.787(c), (d)	30 30 30 30	Doors Cargo and Baggage Compartments Cargo and Baggage Compartments Cargo and Baggage Compartments	N/A Compliance with 23.301 through 307 Design N/A		×	Installation does not block doors. Basket is a closed container. Cargo is external to helicopter.

Airworthiness Requirement	5	Subject for Compliance or Documentary Proof	Form of Substantiation	DOT	DAR	Comments
Paragraph	Amd	t.				
27.807	30	Emergency Exits	N/A			Installation does not block doors.
27.865	30	External Load Attaching Means	N/A			Cargo basket is classified as a cargo compartment
27.1387 27.1401	30 30	Position Light System Dihedral Angles Anticollision Light System	N/A Statement	Xqp.		No change from Type Approval. Light located at FS 396, WL 130 on vertical fin Basket has no significant effect on visibility of anticollision light.
Subpart G -	Opera	ting Limitations and Information				
27.1505	30	Never Exceed Speed	Flight Test,	XX		V_{NE} limits to be verified by flight test.
27.1525 27.1529	30 30	Kinds of Operation Instructions for Continuing Airworthiness	Flight Manual Supplement Flight Manual Supplement ICA Provided	X X	. Oa	Limited to VFR only.
27.1557(a)	30	Miscellaneous Markings and Placards – Baggage Compartments	Placard provided	,	×K	B .
27.1557(b) 27.1557(c) 27.1557(d)	30 30 30		N/A N/A N/A			
27.1581 27.1583(c)	30 30	Rotorcraft Flight Manual – General Operating Limitations – Weight and Loading Information	Flight Manual Supplement Flight Manual Supplement	XX	,	
27.1585 27.1587 27.1589	30 30 30	Operating Procedures Performance Information Loading Information	Flight Manual Supplement Flight Manual Supplement Flight Manual Supplement & Placard	x 9 x 9 x 9.	•	Placard installed on basket lid
Airworthines	s Man	ual Requirements		,		
527.1581(e)		Rotorcraft Flight Manual – Units	SI and Imperial Units provided in Flight Manual Supplement	xap		

Flight Test Report

Aero Design Basket on Bell 407

Prairie Northern Region

Test Aircraft Registration: C-GFCC

Test Configuration:

× ...

Configuration was standard for type with the addition of a cargo mirror and cargo hook. The aircraft was flown in two different configurations:

1 – Long Basket plus 125 Pound load installed on Right; T/O gross weight 4719 lbs, longitudinal CG 122.9 in, lateral CG +1.05 in.

2 – No Basket Installed; T/O gross weight 4556 lbs, longitudinal CG 122.9 in, lateral CG +1.11 in.

Original basis of certification: FAR 27 as per TCDS

The modified aircraft was examined against the requirements of: CAR 527.

Flight Authority: Flight Permit (Experimental)

Personnel involved were: Michel Brulotte (AARDC), Geoff Dolan CH787731 (Blackcomb Helicopters), Ted Burgoin (Aero Design)

The subject aircraft was test flown by Michel Brulotte from Transport Canada on 3 November 2011.

Flight tests were conducted within 10 miles of the Pitt Meadows airport. The prevailing temperatures were +5 to +10 C, test pressure altitudes were between 200 and 4000 feet. The winds were calm.

TEST PROGRAM

TEST PROGRAM

The following tests were performed:

Hover and Low Speed Controllability Determination of Maximum Level Flight Airspeed Controllability in Forward Flight and at V_{NE} Flight at V_{D} (1.11* V_{NE}) Static Longitudinal Stability in Cruise Flight, in MCP Climb, and in Autorotation Static Directional Stability in Cruise Flight and in MCP Climb Autorotation Entries Performance Climbs AEO

DISCUSSION – Flight Characteristics and Performance

Low Speed Controllability – Low speed controllability was qualitatively assessed in ground effect at speeds up to approximately 20 knots. There were no noticeable differences between the modified and unmodified configurations.

Maximum Level Flight Airspeed V_H – The maximum level flight airspeed was found to be 120 KIAS the basket installed, and 132 knots with no basket installed.

Controllability at V_{NE} – The modified aircraft was flown at the basic aircraft V_{NE} (140 KIAS) with maximum continuous power. There were adequate control margins in level flight and in turns up to 30 degrees of bank. There was no difference noted for controllability between the modified and unmodified configurations. The longitudinal control position was further aft for the modified configuration when compared to the unmodified aircraft, which meets the FAA mast bending criteria.

Flight at Demonstration Speed (1.11* V_{NE}) – The aircraft was flown at speeds up to 155 KIAS at 1000 ft using maximum continuous power. There were no unusual aircraft vibrations or handling characteristics noted at V_D .

Static Longitudinal Stability – The static longitudinal stability was assessed for the aircraft with both baskets installed under the following conditions: Climb, Cruise, and Autorotation. The static longitudinal stability was found to be positive for all the conditions flown with the baskets installed. There were no noticeable differences between the modified and unmodified configurations.

Steady Heading Side Slips – The static lateral directional stability was assessed for the aircraft with both baskets installed under the following conditions: Climb, and Cruise. The static lateral directional stability of the aircraft was assessed by performing Steady Heading Side-Slips. The static lateral directional stability was positive in climb and cruise conditions for sideslips. There were no noticeable differences between the modified and unmodified configurations.

Performance Climbs – Performance climbs were performed at 60 KIAS in the modified and unmodified configurations using maximum continuous power. There was a 150 ft/min reduction in rate of climb with the basket installed vice with no basket installed.

Controllability after Engine Failure – The controllability after sudden engine failure was assessed for the modified configuration. Simulated engine failures were simulated by rapidly reducing the throttle to idle, waiting at least one second and then reducing the collective at speeds between 40 and 140 KIAS for the modified aircraft. There was no unusual aircraft behaviour upon entry into autorotation.

RECOMMENDATIONS

Based on flight test results the Aero Design Basket modification is recommended for approval on B407 aircraft with the following limitations:

VFR Only

Baskets may be installed on the left side, or right side.

Operating Procedures

The crew should ensure that the load is secured in the basket and that the basket is securely closed prior to flight.

The following performance information must be included in the Flight Manual Supplement:

Cruise performance, and range will be reduced by 10 per cent

Climb performance will be reduced by 150 fpm.

Staal, Jack

From:

Brulotte, Michel

Sent:

Tuesday, November 29, 2011 9:06 AM

To: Subject: 'Jeff Clarke'; Staal, Jack RE: B407 Basket Report

Jeff,

The test plan and results look good, I have no concerns.

Michel

----Original Message----

From: Jeff Clarke [mailto:jeff@aerodesign.ca]

Sent: November 18, 2011 12:26 PM To: Brulotte, Michel; Staal, Jack Subject: RE: B407 Basket Report

Jack, Michel,

Please find attached the flight test plan with results and weight and balance for the test aircraft. If this is acceptable I will use the existing performance information in the flight manual supplement, per the message from Michel below.

Thank you.

Jeff

----Original Message-----

From: Brulotte, Michel [mailto:michel.brulotte@tc.gc.ca]

Sent: November 4, 2011 8:40 AM To: Jeff Clarke; Staal, Jack Subject: RE: B407 Basket Report

Before I may can recommend the basket for the 206L there will need to be a vibration test. Once that is done you could use the same performance penalties as the previous basket.

Thanks,

Michel

From: Jeff Clarke [jeff@aerodesign.ca]

Sent: November 4, 2011 9:35 AM
To: Brulotte, Michel; Staal, Jack
Subject: RE: B407 Basket Report

Michel,

The 407 basket will also be installed on the 206L series. The cruise and climb reductions on the 407 are about the same (was 200 fpm and 10 knots previously). The 206L FMS currently says climb is reduced up to 350 fpm and cruise reduced by approx 10 mph. Can you please add the 206L to the recommendations?

Thanks,

Jeff

----Original Message----

From: Brulotte, Michel [mailto:michel.brulotte@tc.gc.ca]

Sent: November 3, 2011 10:47 PM To: Staal, Jack; jeff@aerodesign.ca

Subject: B407 Basket Report

Jack,

I have attached the report for the B407 flight tests. I also made some minor editorial corrections to the AS350 report, and added the recommendation for the AS355.

Please let me know if you have questions.

Thanks,

Michel=

AIRWORTHINESS REQUIREMENTS **COMPLIANCE PROGRAM**

Page 1 of 3 **CP945**

APPLICANT: AERO Design Ltd. 2013 39th Avenue NE

REV. No. 0

Calgary, Alberta, T2E 6R7

MAKE:

Bell Helicopter

CORRESPONDANCE TO:

(If other than applicant)

MODEL: 206L Series, 407

REGISTRATION: All Applicable

SERIAL No.: All Applicable

DATE: 20 September 2011

30 Loads – Air Drag Loads

30 Loads - Inertia Loads

NATURE OF WORK: Installation of Side-Mounted External Cargo Basket

Analysis

27.301

27.301

MODEL CERTIFICATION BASIS: FAR 27, Amendment 27-30, with exceptions as noted below. (Bell 407, highest of 206L Series and 407)

MODIFICATION CERTIFICATION BASIS: FAR 27, Amendment 27-30, with exceptions as noted below.

Airworthiness Requirement	S	Subject for Compliance or Documentary Proof	Form of Substantiation	DOT	DAR	Comments
Paragraph	Amd	t.				
Subpart B –	Flight					
27.27 27.29	30 30	Centre of Gravity Limits Empty Weight and Corresponding C of G	N/A Data specified on inst'n drawing		X	No change from Type Approval.
27.51 27.65 27.71 27.75 27.141 27.143 27.151 27.161 27.171 27.173 27.175 27.177 27.241 27.251	30 30 30 30 30 30 30 30 30 1 1 30 30 30	Takeoff Climb: All Engines Operating Gliding Performance Landing Flight Characteristics – General Controllability and Maneuverability Flight controls Trim Stability – General Longitudinal Stability Demonstration of Longitudinal Stability Static Directional Stability Ground Resonance Vibration	Flight Test	X X X X X X X X X X		Flight tests to be performed on Bell 407 in accordance with FTP945.03 and by Transport Canada Flight Test
Subpart C –	Streng	th Requirements			Λ	

Compliance with 27.337 and 27.561

AIRWORTHINESS REQUIREMENTS COMPLIANCE PROGRAM

Airworthiness Requirement	S	Subject for Compliance or Documentary Proof	Form of Substantiation	DOT	DAR	Comments
Paragraph	Amd	t.			^.	
27.303 27.305 27.307 27.337(a) 27.471 27.473	30 30 30 30 30 30	Factor of Safety Strength and Deformation Proof of Structure Limit Maneuvering Load Factor – Positive Ground Loads - General Ground Loading Conditions and Assumptions	Analysis Analysis and Test iaw AC 43.13-1A Analysis and Test iaw AC 43.13-1A Analysis and Test iaw AC 43.13-1A N/A N/A		XXXXX	Critical load factor in downward direction. No change from STC approved configuration. No change to assumptions used for Type Approved configuration.
27.501 27.547 27.561 27.561(b)3(i) 27.561(b)3(ii) 27.561(b)3(iii) 27.561(b)3(iv)	30 30 30 24 24 24 24	Ground Loading Conditions – Landing Gear with Skids Main Rotor Structure Emergency Landing Conditions Emergency Landing Conditions – Up Emergency Landing Conditions – Fwd Emergency Landing Conditions – Side Emergency Landing Conditions – Down	Flight Test Analysis and Test iaw AC 43.13-1A Analysis and Test iaw AC 43.13-1A N/A Analysis and Test iaw AC 43.13-1A Compliance with 27.337	x	×	Loads from the cargo basket on the landing gear fittings do not use skid tubes or cross tubes in load path. See comments for flight test above Forward deflection or failure of basket poses no threat to occupants. 27.337 Maneuvering Load is Critical.
Subpart D – D	esign	and Construction			4	
27.601 27.603 27.605 27.609 27.611 27.613	30 30 30 30 30 30 30	Design Materials Fabrication Methods Protection of Structure Inspection Provisions Material Strength Properties and Design Values Fitting Factor	Drawings Drawings Drawings Drawings Drawings Values used as per Mil-Hdbk-5H Analysis		X	Design is conventional. Materials used are specified in Mil-Hdbk-5H. Design is conventional. Design is easy to inspect.
27.725 27.727	30 30	Limit Drop Test Reserve Energy Absorption Drop Test	N/A N/A			No change in ground clearance from STC approved configuration
27.783 27.787(a) 27.787(b) 27.787(c), (d)	30 30 30 30	Doors Cargo and Baggage Compartments Cargo and Baggage Compartments Cargo and Baggage Compartments	N/A Compliance with 23.301 through 307 Design N/A		×	Installation does not block doors. Basket is a closed container. Cargo is external to helicopter.

AIRWORTHINESS REQUIREMENTS COMPLIANCE PROGRAM

Airworthiness Requirement	5	Subject for Compliance or Documentary Proof	Form of Substantiation	DOT	DAR	Comments
Paragraph	Amd					
27.807	30	Emergency Exits	N/A			Installation does not block doors.
27.865	30	External Load Attaching Means	N/A			Cargo basket is classified as a cargo compartment
27.1387 27.1401	30 30	Position Light System Dihedral Angles Anticollision Light System	N/A Statement	Х		No change from Type Approval. Light located at FS 396, WL 130 on vertical fin Basket has no significant effect on visibility of anticollision light.
Subpart G –	Operat	ting Limitations and Information				
27.1505	30	Never Exceed Speed	Flight Test,	Х		V_{NE} limits to be verified by flight test.
27.1525 27.1529	30 30	Kinds of Operation Instructions for Continuing Airworthiness	Flight Manual Supplement Flight Manual Supplement ICA Provided	X	Ω ₂	Limited to VFR only.
27.1557(a)	30	Miscellaneous Markings and Placards – Baggage Compartments	Placard provided		×	B .
27.1557(b)	30	Miscellaneous Markings and Placards	N/A			
27.1557(c) 27.1557(d)	30 30	Miscellaneous Markings and Placards Miscellaneous Markings and Placards	N/A N/A			
27.1581 27.1583(c)	30 30	Rotorcraft Flight Manual – General Operating Limitations – Weight and Loading Information	Flight Manual Supplement Flight Manual Supplement	X X		
27.1585	30	Operating Procedures	Flight Manual Supplement	Х		
27.1587 27.1589	30	Performance Information	Flight Manual Supplement	X		Placard installed on basket lid
	30 c Man	Loading Information	Flight Manual Supplement & Placard	^		Placard installed on basket lid
Airwortnines	s wan	ual Requirements				
527.1581(e)		Rotorcraft Flight Manual – Units	SI and Imperial Units provided in Flight Manual Supplement	X		

Transports Canada



DÉLÉGUÉ MINISTÉRIEL CONSTAT DE CONFORMITÉ AVEC LA BASE DE CERTIFICATION

1. Reference No. / N° de référence		2. Applicant Name / Nom de demandeur	
NAPA File C-11-0786 A	ero Design Project 945	Aero Design Ltd.	
Part 1: Identification of Aeronautical Produ Partie 1 : Identification des produits aérona			
Applicable Design Approval Document No. H-92	/ N° du document d'approbation de la conc	eption applicable	
4. Model No. / N° de modèle 206L, 206L-1, 206L-3, 206L-4	1, 407	5. Make / Marque Bell Helicopter Textron Cana	da Ltd.
6. Type (aircraft, engine, propeller, appliance, Helicopter	part) / Type (aéronef, moteur hélice, appar	eillage, pièce)	
Part 2: Substantiating Reports and Data Partie 2: Rapports et des données pertine	ntes		
7. Number / Numéro DCL945-1 Revision 0	8. Title / Titre Document Control L	ist, and all documents reference	d therein.
DCL945-2, Revision 0	Document Control L	ist, and all documents reference	d therein.
DCL945-10, Revision 0	Document Control L	ist, and all documents reference	d therein.
9. Purpose of Finding of Compliance / But de New approval: Supplemental Type Supplemental Type Repair Design Certif Other: Revision is to add new, larger	Certificate Certificate-Limited icate	Yes The revised data approval docume	is within the scope of the
10. Applicable Elements of Certification Basis Certification Plan: CP		cation Letter of exention of delegation, d	ated:
Part 3: Ministerial Delegate Finding of Com Partie 3 : Délégué ministériel constat de co			
Under the authority vested in me by the Aeronautics Act, I hereby find that the ty is in compliance with the certification bas substantiating reports and data to the be	pe design of the aeronautical product sis as demonstrated by the applicant's	paragraphe 4.3(1) de la Loi sur l'Aérona	autique, j'estime que, à ma produit aéronautique est conforme à sa
11. Signature of Delegate(s) Signature des délégués	12. Name / Nom	13. Delegate No. / N° de délégué	14. Date (yyyy-mm-dd) Date (aaaa-mm-jj)
& Bu	E. Burgoin, Aero Design Ltd.	DAR 290M	2011 - 11-22



Transport Canada Transports Canada

MINISTERIAL DELEGATE STATEMENT OF COMPLIANCE WITH THE CERTIFICATION BASIS

DÉLÉGUÉ MINISTÉRIEL CONSTAT DE CONFORMITÉ AVEC LA BASE DE CERTIFICATION

Block 7 (continued from she	eet 1)		
Document Number	Revision	Title	Comment
DCL945-1	0	Document Control List – Bell 407 Installation	
94501	0	Quick Release Cargo Basket Installation	
70102	0	Quick Release Mounting Provisions Installation	
SI698.91	0	Service Instructions – Sliding Door Modification	
DCL945-2	0	Document Control List – Bell 206L Installation	
94502	0	Quick Release Cargo Basket Installation	
70202	0	Quick Release Mounting Provisions Installation	
DCL945-10	0	Document Control List – Cargo Basket Fabrication	
94510	0	Cargo Basket Assembly	
94511	0	Basket Body Assembly	
69812	3	Basket Lid Assembly	
94520	0	Basket Components - Hoop	
94521	0	Basket Components - Forward Hoop	
94522	0	Basket Components - Aft Hoop	
94527	0	Basket Components - Placard	
69823	1	Basket Components - Lugs	
49215	0	Basket Components - Spacer	
49216	0	Basket Components - Spacer	
84255	1	Handle Assembly	
84261	1	Handle Bar Assembly	
84262	1	Handle Bracket Assembly	
84265	1	Handle Lever	
84267	0	Handle Bracket	
84272	1	Bushing	
36273	1	Lid Bracket	
36274	2	Bushing	
36275	3	Bushing	
36277	0	Handle Bar	
36278	1	Spring	
36280	2	Brace	
ER945.01	0	Engineering Report	
FTP945.03	1	Flight Test Plan and Report	
ER842.01	0	Engineering Report	

DCL698-2	4	Document Control List – Beams Fabrication
69830	3	Forward Beam Fabrication
69831	3	Aft Beam Fabrication
ER698.02	0	Engineering Report
TP698.03	0	Test Report
ER698.04	0	Engineering Report
ER698.06	0	Engineering Report

Documents listed below this line (if any) cannot be approved by the delegate:

, , , , , , , , , , , , , , , , , , ,	any cannot be approved by the delegate.	
3	Flight Manual Supplement (Bell 407)	
3	Flight Manual Supplement (Bell 206L Series)	
2	Instructions for Continued Airworthiness	
	3 3 2	3 Flight Manual Supplement (Bell 206L Series)

DOCUMENT CONTROL LIST

INSTALLATION DOCUMENTS		MENT CONTENT	REVISION	1
94501 70102		go Basket Installation nting Provisions Installation	0 ~	
FMS701.90	Flight Manual Supp	lement	3 🗸	
ICA698.90	Instructions for Con	tinued Airworthiness	2	
SI698.91	Service Instructions	- Sliding Door Modification	0	
FABRICATION DOCUMENTS				
DCL945-10 DCL698-2	Document Control L Document Control L	ist for Cargo Basket Assembly ist for Beams	0 ✓ 4 ✓	emailed
APPROVAL:	ORIGINAL DATE:	<i>AERO</i> DESIG		
	REVISION DATE:	2013 – 39 th Ave NE, Calgary, A Ph. (403) 250-802 Fax. (403) 250-833 www.aerodesign.c	?7 33	
	SHEET 1 OF 1	Bell 407 Quick Release Carg Installation		
			Rev.	
	DC	L945-1	0	

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCU	MENT CONTENT	REVISION	
INSTALLATION DOCUMENTS				
94502 70202	Quick Release Carg Quick Release Mou	go Basket Installation nting Provisions Installation	0 /	
FMS702.90	Flight Manual Supp	lement	31	
ICA698.90	Instructions for Con	tinued Airworthiness	2	
FABRICATION DOCUMENTS				
DCL945-10 DCL698-2	Document Control L Document Control L	List for Cargo Basket Assembly List for Beams	0 4	Cmailed
APPROVAL:	ORIGINAL DATE:	AERO DESIG	SN LTD.	
	27 October 2011 REVISION DATE:	2013 – 39 th Ave NE, Calgary, Ph. (403) 250-8	Alberta, T2E 6R7	
	REVISION DATE.	Fax. (403) 250-8 www.aerodesign	3333	
	SHEET 1 OF 1	Bell 206L Se Quick Release Ca Installatio	rgo Basket	
			Rev.	
	DC	L945-2	0	

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCU	MENT CONTENT	REVISION
FABRICATION DOCUMENTS			
94510 94511 69812 94520 94521 94522 94527	Cargo Basket Assem Basket Body Assembly Basket Lid Assembly Basket Components Basket Components Basket Components Basket Components	bly / - Hoop - Forward Hoop - Aft Hoop	0 / 0 / 0 / 0 / 0 / 0 / 0 / 0 / 0 / 0 /
69823	Basket Components	- Lugs	1 🗸
49215 49216	Basket Components Basket Components		0 /
84255 84261 84262 84265 84267 84272 36273 36274 36275 36277 36278 36280	Handle Assembly Handle Bar Assembl Handle Bracket Asse Handle Lever Handle Bracket Bushing Lid Bracket Bushing Bushing Handle Bar Spring Brace		1 1 1 1 0 0 0 1 2 3 0 0 2 2 2
ENGINEERING DOCUMENTS ER945.01	Engineering Report		0 <
FTP945.03	Flight Test Plan and	Report	0 /
ER842.01	Engineering Report		0 0
APPROVAL:	ORIGINAL DATE: 27 October 2011 REVISION DATE:	AERO DESIG 2013 – 39 th Ave NE, Calgary, A Ph. (403) 250-80; Fax. (403) 250-83 www.aerodesign.	lberta, T2E 6R7 27 33
	SHEET 1 OF 1	Bell 206L Serie Quick Release Carg Fabricatio	go Basket
	DCI	L945-10	Rev.

DECLARATION OF CONFORMITY WITH THE CERTIFICATION BASIS

In accordance with Canadian Aviation Regulations Subpart 521, I hereby declare that the design of the Quick Release Cargo Baskets, as detailed in the data approved by Transport Canada approval SH00-48, has been demonstrated to conform to the best of my knowledge to the basis of certification established by the Minister for that approval in file C-11-0786.

per:

E. Burgoin

Print Name

Consultant Title 22 November 2011

Date

AERO DESIGN LTD. 2013 – 39 Avenue N.E. Calgary, Alberta, T2E 6R7

Α

В

Date:

SIGNED UNDERTAKING

Tel: 403-250-8027 Fax: 403-250-8333

In accordance with CAR 521_AE	RO Design Ltd.	hereby
undertake to carry out the responsas set out in Division VIII of Part \	Company to hold the approval document(s): sibilities of a design approval docu /, Subpart 21 of the CARs, regardi	ment holder, ng:
 Technical capability, Service difficulty reporting, Establishing a service difficulty reporting, Investigation of service difficulty changes, Mandatory changes, Transfers, Record keeping and loss of Manuals, Instructions for continued and continued	cult reporting system, riculty reports, or disposal of records, airworthines, and	
VI By	20 ll	-11-22
Signature of Holder's authorized person: Consultant Position / Title:	Date.	
AERO Design Ltd agree	he CARs, Part V, Subpart 521, Cha es to administer the preceding resp al(s) below, on a fee for service ba und in:	onsibilities on
Transport Canada file number:	C-11-0786	
Project Reference number:	698, 945, 946	
Approval Number:	SH00-48	
per: Signature	Signature of Holder's authorized person:	
E. Burgoin Consultant Print Name Title	E. Burgoin Print Name	
2011-11-22	2011-11-22	

Date

Applicant	Aeronautical Prod	luct	,		Title of Change
Aero Design Ltd.	Make	Model	Serial No.	Registration	Cargo Basket Installation (945 Configuration)
	Bell	206L Series / 40	7		S/N 94501-01
Drawing No.		's Inspector	T.C. Inspection		Findings
	Signature	Date	Signature	Date	
√94510, Rev. 0	M. Oak.	31 OCT 2011	2011	-11-23	
✓94511, Rev. 0	If Ceh.	1	2 1/1	-11 - 23	
69812, Rev. 2	all Cake		7//	-11-23	
✓PD945, Rev. 0	MUCCL.	4	7) 2011	1-11-23	
	011		1		
	APPLICANT	'S ATTESTATION			TC INSPECTION
ereby confirm that the	prototype installation	for the subject		ACCEPTABLE	
MODIFICATION,	,			☐ UNACCEPTABL	E
REPAIR,					_
TSO/AP-TC ARTICL	E				
		drawing(s) listed abo	ve		
that necessary groups ase check () the approximately	ind tests have been o	n drawing(s) listed abo carried out.	•••		
sace official () and ap	opiioabio box.j				
ditional Information: 945 details prototype 312, Rev. 3.	discrepancies from p	production drawing. P	roduction to use lid drawing	Remarks:	
	1110				\sim
Signature:	If Clark.			Signature:	
	101			/	1

BELL 206L SERIES

FOTORCRAFT FLIGHT MANUAL SUPPLEMENT for the INSTALLATION of the AERO DESIGN QUICK RELEASE CARGO BASKET AND/OR QUICK RELEASE STEP

Canadian Supplemental Type Certificate No. <u>SH00-48</u> FAA Supplemental Type Certificate No. <u>SR02253NY</u>

Sections I, II, III and IV of this document comprise the Transport Canada Approved sections of this Flight Manual Supplement. Compliance with Section I, Limitations, is mandatory.

Section V and any subsequent sections if present are Unapproved and are provided for information only.

The information and data contained in this Flight Manual Supplement supersede or supplement that contained in the basic Approved Flight Manual for the Bell 206L Series when fitted with the Quick Release Cargo Basket or Quick Release Step Installation. For limitations, procedures and performance not listed in this Flight Manual Supplement, refer to the Approved Flight Manual and other approved Flight Manual Supplements.

Table of Contents

1	Limitations	3
П	Normal Procedures	3
Ш	Emergency Procedures	3
IV	Performance	3
V	Weight and Balance	4
VI	Installation / removal instructions	8

Record of Revisions

Revision	Issue Date	Pages Revised	Date Inserted	Ву
0	05 May, 2006	None		
1	09 Nov, 2006	2, 6		
2	17 July, 2008	All		
3	26 Oct, 2011	All		

I LIMITATIONS

- 1. The maximum load in the AERO Design Ltd. Quick Release Cargo Basket is 300 lb. (136 kg).
- Flight operations limited to VFR conditions with AERO Design Ltd. Cargo Basket installed.
- 3. Quick Release Step may be installed when the basket is removed.

II NORMAL PROCEDURES

- 1. Pre-flight inspections:
 - Ensure that all cargo stored in the cargo basket does not extend outside the basket, is properly tied down and secured for flight.
 - b) Ensure that the lid of cargo basket is closed and secured.
 - Ensure the basket is locked in postion on the beams. Pull
 up on the forward and aft end of the basket to check.
 - d) Ensure the step is locked in position on the beams. Pull up on the forward and aft end of the step to check.

CAUTION

It is possible to exceed the lateral centre of gravity limits of the rotorcraft under some loading conditions. Pilots must ensure that lateral C of G is within limits when loading the basket.

III EMERGENCY PROCEDURES

No change from basic Approved Flight Manual.

CAUTION:

The rotorcraft glide angle is steeper than that of the basic helicopter when the AERO Design Ltd. Cargo Basket is installed.

IV PERFORMANCE

Climb performance may be reduced by up to 350 fpm with the basket installed.

Cruise speeds are reduced by approximately 10 mph with the basket installed.

V WEIGHT AND BALANCE

1. The following weight and balance is for the low mounted quick release cargo basket configuration, installed in accordance with drawing 70201.

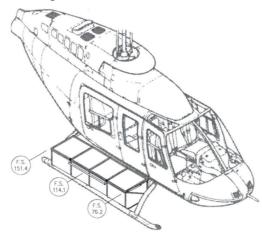


Figure 1 – Quick Release Cargo Basket (Configuration 70201)

Low Mounted Quick Release Cargo Basket Configuration

Item	Weight	Longitudinal		Lateral	
item		Arm	Moment	Arm	Moment
Basket	45.0 lb	114.1 in	5134 in*lb	38.5 in	1733 in*lb
Only ¹	20.4 kg	2898 mm	59 122 mm*kg	978 mm	19 949 mm*kg
Cargo ²	300 lb	114.1 in	34 230 in*lb	38.5 in	11 550 in*lb
(MAX)	136 kg	2898 mm	393 413 mm*kg	978 mm	132 747 mm*kg

¹ Weight and balance is for Cargo Basket only. Mounting beams and attachment provisions are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

CAUTION:

It is possible to exceed lateral CG limits in some configurations.

² Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

2. The following weight and balance is for the quick release step configuration, installed in accordance with drawing 80002.

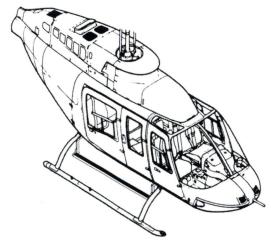


Figure 2 – Quick Release Step (Configuration 80002)

Quick Release Step Configuration

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
Step	8.2 lb	114.1 in	935.6 in*lb	29.3 in	239.9 in*lb
Only ¹	3.7 kg	2898 mm	10 723 mm*kg	744 mm	2 754 mm*kg

Quick Release Step Configuration (Stowed Position)

Item	Weight	Longitudinal		Lateral	
пеш		Arm	Moment	Arm	Moment
Step	8.2 lb	114.1 in	935.6 in*lb	23.7 in	194.3 in*lb
Only ¹	3.7 kg	2898 mm	10 723 mm*kg	602 mm	2 227 mm*kg

¹ Weight and balance is for Step only. Mounting beams and attachment provisions are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

 The following weight and balance is for the large low mounted quick release cargo basket configuration, installed in accordance with drawing 94502.

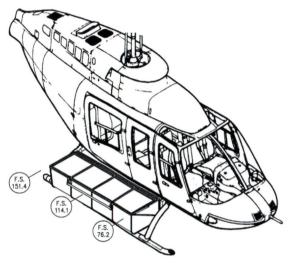


Figure 3 – Quick Release Cargo Basket (94502 Configuration)

Large Low Mounted Quick Release Cargo Basket Configuration

Item	Weight	Longitudinal		Lateral	
	vveignt	Arm	Moment	Arm	Moment
Basket	47.8 lb	114.1 in	5 454 in*lb	39.6 in	1 893 in*lb
Only ¹	21.6 kg	2898 mm	62 684 mm*kg	1006 mm	21 755 mm*kg
Cargo ²	300 lb	114.1 in	34 230 in*lb	38.5 in	11 880 in*lb
(MAX)	136 kg	2898 mm	393 413 mm*kg	1006 mm	136 539 mm*kg

¹ Weight and balance is for Cargo Basket only. Mounting beams and attachment provisions are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

CAUTION:

It is possible to exceed lateral CG limits in some configurations.

² Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

 The following weight and balance is for the large, long, low mounted quick release cargo basket configuration, installed in accordance with drawing 94602.

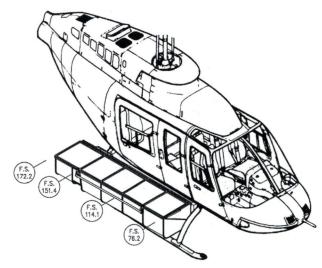


Figure 4 – Quick Release Cargo Basket (94602 Configuration)

Large Long Low Mounted Quick Release Cargo Basket Configuration

Item	Weight	Longitudinal		Lateral	
illeill	vveignt	Arm	Moment	Arm	Moment
Basket	63.0 lb	125.0 in	7 875 in*lb	39.6 in	2 495 in*lb
Only ¹	28.5 kg	3175 mm	90 509 mm*kg	1006 mm	28 673 mm*kg
Cargo ²	300 lb	114.1 in	34 230 in*lb	38.5 in	11 880 in*lb
(MAX)	136 kg	2898 mm	393 413 mm*kg	1006 mm	136 539 mm*kg

¹ Weight and balance is for Cargo Basket only. Mounting beams and attachment provisions are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

CAUTION:

It is possible to exceed lateral CG limits in some configurations.

² Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

VI INSTALLATION / REMOVAL INSTRUCTIONS

The Quick Release Mounting Provisions are installed in accordance with drawing 70202. The Quick Release Basket is installed in accordance with drawing 70201, 94502, or 94602 as applicable. The Quick Release Step is installed in accordance with drawing 80002. Removal of the basket or step leaving the beams in place is an approved configuration for flight. Logbook entry indicating installation or removal of basket or step and which weight and balance amendment is in effect is required.

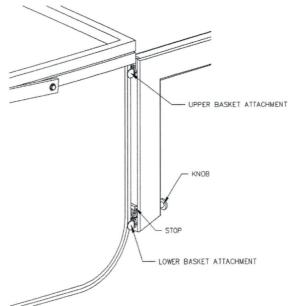


Figure 3 - Basket Attachment

- 1. Installation Refer to Figure 3.
 - 1. Set basket upper attachment into slot on forward and aft beams.
 - At forward end of basket, lift until lower attachment fitting hits stop over keyway. Push fitting into keyway and slide basket down until locked. Repeat for aft end.
- 2. Removal Refer to Figure 3.
 - Pull knob at bottom end of forward beam and lift basket until lower attachment fitting is free of keyway. Keep upper basket attachment in slot in beam. Repeat for aft end.
 - 2. Lift basket until upper attachments are out of slots on beams and remove basket from helicopter.

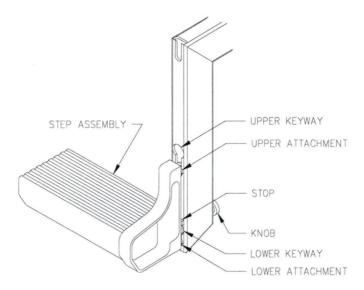


Figure 4 - Step Attachment

- 3. Step Installation Refer to Figure 4.
 - 1. Set upper attachment into upper keyway on forward and aft beams.
 - 2. Lift step until lower attachment hits stop over keyway. Push fitting into keyway and slid down until locked.
- 4. Step Removal Refer to Figure 4.
 - Pull knob at bottom end of forward beam and lift step until the lower attachment fitting is free of keyway. Keep upper attachment in keyway in beam. Repeat for aft end.
 - Lift step until upper attachments are out of keyways in beams and remove from helicopter.

BELL 407

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INSTALLATION of the AERO DESIGN QUICK RELEASE CARGO BASKET AND/OR QUICK RELEASE STEP

Canadian Supplemental Type Certificate No. <u>SH00-48</u> FAA Supplemental Type Certificate No. <u>SR02253NY</u>

Sections I, II, III and IV of this document comprise the Transport Canada Approved sections of this Flight Manual Supplement. Compliance with Section I, Limitations, is mandatory.

Section V and any subsequent sections if present are Unapproved and are provided for information only.

The information and data contained in this Flight Manual Supplement supersede or supplement that contained in the basic Approved Flight Manual for the Bell 407 when fitted with the Quick Release Cargo Basket or Quick Release Step Installation. For limitations, procedures and performance not listed in this Flight Manual Supplement, refer to the Approved Flight Manual and other approved Flight Manual Supplements.

Table of Contents

1	Limitations	3
П	Normal Procedures	3
Ш	Emergency Procedures	3
IV	Performance	4
V	Weight and Balance	5
VI	Installation / removal instructions	9

Record of Revisions

Revision	Issue Date	Pages Revised	Date Inserted	Ву
0	05 May, 2006	None		
1	09 Nov, 2006	2, 6		
2	17 July, 2008	All		
3	26 Oct, 2011	All		

I LIMITATIONS

- 1. The maximum load in the AERO Design Ltd. Quick Release Cargo Basket is 300 lb. (136 kg).
- Flight operations limited to VFR conditions with AERO Design Ltd. Cargo Basket installed.
- 3. Maximum lateral or rearward speed limited to 25 KIAS.
- Maximum winds from aft quadrants limited to 25 KIAS for takeoff, landing or hover flight.
- V_{NE} is 140 KIAS except when the V_{NE} of the basic rotorcraft is more restrictive, in which case the lower V_{NE} applies.
- 6. Quick Release Step may be installed when the basket is removed.

II NORMAL PROCEDURES

- 1. Pre-flight inspections:
 - Ensure that all cargo stored in the cargo basket does is properly tied down and secured for flight.
 - b) Ensure that the lid of cargo basket is closed and secured.
 - Ensure the basket is locked in postion on the beams. Pull
 up on the forward and aft end of the basket to check.
 - d) Ensure the step is locked in position on the beams. Pull up on the forward and aft end of the step to check.

CAUTION

It is possible to exceed the lateral centre of gravity limits of the rotorcraft under some loading conditions. Pilots must ensure that lateral C of G is within limits when loading the basket.

III EMERGENCY PROCEDURES

No change from basic Approved Flight Manual.

CAUTION:

The rotorcraft glide angle is steeper than that of the basic helicopter when the AERO Design Ltd. Cargo Basket is installed.

AERO DESIGN LTD.

FMS701.90

IV PERFORMANCE

Climb performance may be reduced by up to 200 fpm.

Cruise speeds are reduced by approximately 10 kts. (11 mph).

V WEIGHT AND BALANCE

 The following weight and balance is for the low mounted quick release cargo basket configuration, installed in accordance with drawing 70101.

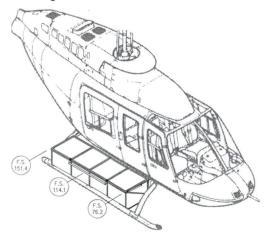


Figure 1 – Quick Release Cargo Basket (70101 Configuration)

Low Mounted Quick Release Cargo Basket Configuration

Item	Weight	Lo	ngitudinal		Lateral
Item	vvcigitt	Arm	Moment	Arm	Moment
Basket	45.0 lb	114.1 in	5134 in*lb	38.5 in	1733 in*lb
Only	20.4 kg	2898 mm	59 122 mm*kg	978 mm	19 949 mm*kg
Cargo ²	300 lb	114.1 in	34 230 in*lb	38.5 in	11 550 in*lb
(MAX)	136 kg	2898 mm	393 413 mm*kg	978 mm	132 747 mm*kg

¹ Weight and balance is for Cargo Basket only. Mounting beams and attachment provisions are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

CAUTION:

It is possible to exceed lateral CG limits in some configurations.

² Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

The following weight and balance is for the quick release step configuration, installed in accordance with drawing 80002.

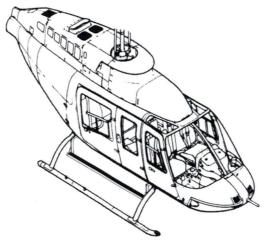


Figure 2 – Quick Release Step Configuration

Quick Release Step Configuration

Item	Weight	Lo	ngitudinal		Lateral
ittoiii	vvoigni	Arm	Moment	Arm	Moment
Step	8.2 lb	114.1 in	935.6 in*lb	29.3 in	239.9 in*lb
Only ¹	3.7 kg	2898 mm	10 723 mm*kg	744 mm	2 754 mm*kg

Quick Release Step Configuration (Stowed Position)

Item	Weight	Loi	ngitudinal		Lateral
Item	vveignt	Arm	Moment	Arm	Moment
Step	8.2 lb	114.1 in	935.6 in*lb	23.7 in	194.3 in*lb
Only ¹	3.7 kg	2898 mm	10 723 mm*kg	602 mm	2 227 mm*kg

¹ Weight and balance is for Step only. Mounting beams and attachment provisions are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

 The following weight and balance is for the large low mounted quick release cargo basket configuration, installed in accordance with drawing 94501.

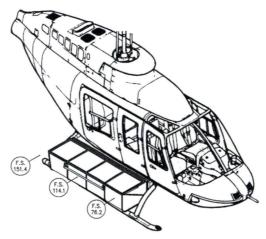


Figure 3 – Quick Release Cargo Basket (94501 Configuration)

Large Low Mounted Quick Release Cargo Basket Configuration

Item	Weight	Longitudinal		Lateral	
110111	Worging	Arm	Moment	Arm	Moment
Basket	47.8 lb	114.1 in	5 454 in*lb	39.6 in	1 893 in*lb
Only	21.6 kg	2898 mm	62 684 mm*kg	1006 mm	21 755 mm*kg
Cargo ²	300 lb	114.1 in	34 230 in*lb	38.5 in	11 880 in*lb
(MAX)	136 kg	2898 mm	393 413 mm*kg	1006 mm	136 539 mm*kg

¹ Weight and balance is for Cargo Basket only. Mounting beams and attachment provisions are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

CAUTION:

It is possible to exceed lateral CG limits in some configurations.

² Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

 The following weight and balance is for the large, long, low mounted quick release cargo basket configuration, installed in accordance with drawing 94601.

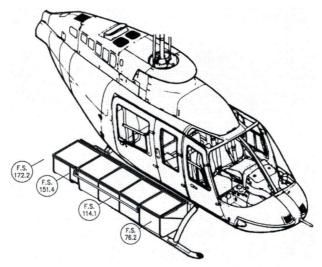


Figure 4 – Quick Release Cargo Basket (94601 Configuration)

Large Long Low Mounted Quick Release Cargo Basket Configuration

Item	Weight	Longitudinal		Lateral	
Item	vveignt	Arm	Moment	Arm	Moment
Basket	63.0 lb	125.0 in	7 875 in*lb	39.6 in	2 495 in*lb
Only ¹	28.5 kg	3175 mm	90 509 mm*kg	1006 mm	28 673 mm*kg
Cargo ²	300 lb	114.1 in	34 230 in*lb	38.5 in	11 880 in*lb
(MAX)	136 kg	2898 mm	393 413 mm*kg	1006 mm	136 539 mm*kg

¹ Weight and balance is for Cargo Basket only. Mounting beams and attachment provisions are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

CAUTION:

It is possible to exceed lateral CG limits in some configurations.

² Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

VI INSTALLATION / REMOVAL INSTRUCTIONS

The Quick Release Mounting Provisions are installed in accordance with drawing 70102. The Quick Release Basket is installed in accordance with drawing 70101, 94501, or 94601 as applicable. The Quick Release Step is installed in accordance with drawing 80002. Removal of the basket or step leaving the beams in place is an approved configuration for flight. Logbook entry indicating installation or removal of basket or step and which weight and balance amendment is in effect is required.

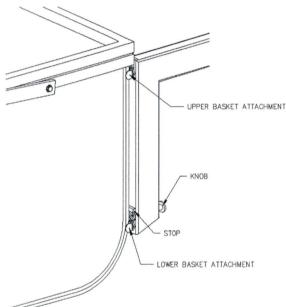


Figure 3 - Basket Attachment

- Basket Installation Refer to Figure 3.
 - 1. Set basket upper attachment into slot on forward and aft beams.
 - At forward end of basket, lift until lower attachment fitting hits stop over keyway. Push fitting into keyway and slide basket down until locked. Repeat for aft end.
- 2. Basket Removal Refer to Figure 3.
 - Pull knob at bottom end of forward beam and lift basket until lower attachment fitting is free of keyway. Keep upper basket attachment in slot in beam. Repeat for aft end.
 - Lift basket until upper attachments are out of slots on beams and remove basket from helicopter.

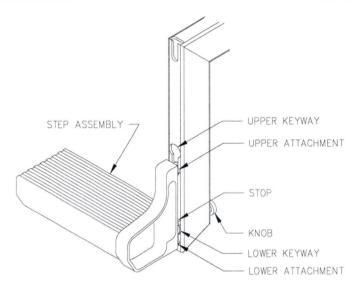


Figure 4 - Step Attachment

- 3. Step Installation Refer to Figure 4.
 - 1. Set upper attachment into upper keyway on forward and aft beams.
 - Lift step until lower attachment hits stop over keyway. Push fitting into keyway and slid down until locked.
- 4. Step Removal Refer to Figure 4.
 - Pull knob at bottom end of forward beam and lift step until the lower attachment fitting is free of keyway. Keep upper attachment in keyway in beam. Repeat for aft end.
 - 2. Lift step until upper attachments are out of keyways in beams and remove from helicopter.





Flight Test Report

Aero Design Basket on Bell 407

Prairie Northern Region

Test Aircraft Registration: C-GFCC

Test Configuration:

Configuration was standard for type with the addition of a cargo mirror and cargo hook. The aircraft was flown in two different configurations:

1 – Long Basket plus 125 Pound load installed on Right; T/O gross weight 4719 lbs, longitudinal CG 122.9 in, lateral CG +1.05 in.

2 – No Basket Installed; T/O gross weight 4556 lbs, longitudinal CG 122.9 in, lateral CG +1.11 in.

Original basis of certification: FAR 27 as per TCDS

The modified aircraft was examined against the requirements of: CAR 527.

Flight Authority: Flight Permit (Experimental)

Personnel involved were: Michel Brulotte (AARDC), Geoff Dolan CH787731 (Blackcomb Helicopters), Ted Burgoin (Aero Design)

The subject aircraft was test flown by Michel Brulotte from Transport Canada on 3 November 2011.

Flight tests were conducted within 10 miles of the Pitt Meadows airport. The prevailing temperatures were +5 to +10 C, test pressure altitudes were between 200 and 4000 feet. The winds were calm.

TEST PROGRAM

TEST PROGRAM

The following tests were performed:

Hover and Low Speed Controllability Determination of Maximum Level Flight Airspeed Controllability in Forward Flight and at V_{NE} Flight at V_{D} (1.11* V_{NE}) Static Longitudinal Stability in Cruise Flight, in MCP Climb, and in Autorotation Static Directional Stability in Cruise Flight and in MCP Climb Autorotation Entries Performance Climbs AEO

DISCUSSION – Flight Characteristics and Performance

Low Speed Controllability – Low speed controllability was qualitatively assessed in ground effect at speeds up to approximately 20 knots. There were no noticeable differences between the modified and unmodified configurations.

Maximum Level Flight Airspeed V_H – The maximum level flight airspeed was found to be 120 KIAS the basket installed, and 132 knots with no basket installed.

Controllability at V_{NE} – The modified aircraft was flown at the basic aircraft V_{NE} (140 KIAS) with maximum continuous power. There were adequate control margins in level flight and in turns up to 30 degrees of bank. There was no difference noted for controllability between the modified and unmodified configurations. The longitudinal control position was further aft for the modified configuration when compared to the unmodified aircraft, which meets the FAA mast bending criteria.

Flight at Demonstration Speed (1.11* V_{NE}) – The aircraft was flown at speeds up to 155 KIAS at 1000 ft using maximum continuous power. There were no unusual aircraft vibrations or handling characteristics noted at V_D .

Static Longitudinal Stability – The static longitudinal stability was assessed for the aircraft with both baskets installed under the following conditions: Climb, Cruise, and Autorotation. The static longitudinal stability was found to be positive for all the conditions flown with the baskets installed. There were no noticeable differences between the modified and unmodified configurations.

Steady Heading Side Slips – The static lateral directional stability was assessed for the aircraft with both baskets installed under the following conditions: Climb, and Cruise. The static lateral directional stability of the aircraft was assessed by performing Steady Heading Side-Slips. The static lateral directional stability was positive in climb and cruise conditions for sideslips. There were no noticeable differences between the modified and unmodified configurations.

Performance Climbs – Performance climbs were performed at 60 KIAS in the modified and unmodified configurations using maximum continuous power. There was a 150 ft/min reduction in rate of climb with the basket installed vice with no basket installed.

Controllability after Engine Failure – The controllability after sudden engine failure was assessed for the modified configuration. Simulated engine failures were simulated by rapidly reducing the throttle to idle, waiting at least one second and then reducing the collective at speeds between 40 and 140 KIAS for the modified aircraft. There was no unusual aircraft behaviour upon entry into autorotation.

RECOMMENDATIONS

Based on flight test results the Aero Design Basket modification is recommended for approval on B407 aircraft with the following limitations:

VFR Only

Baskets may be installed on the left side, or right side.

Operating Procedures

The crew should ensure that the load is secured in the basket and that the basket is securely closed prior to flight.

The following performance information must be included in the Flight Manual Supplement:

Cruise performance, and range will be reduced by 10 per cent

Climb performance will be reduced by 150 fpm.

AERO DESIGN LTD.

2013 - 39 Avenue N.E., Calgary, Alberta, T2E 6R7

Tel: 403-250-8027 Fax: 403-250-8333 www.aerodesign.ca

16 November 2011

Transport Canada Aircraft Certification Division 800-1601 Airport Road Calgary, Alberta T2E 6Z8

Attn: Tim Myers Your File: C-11-0786, C-11-0787

Our File: 940, 945, 946

Re: Bell 206L/407 and Eurocopter AS350/AS355 Cargo Baskets

Tim,

Please find attached the following documents related to this project:

DCL940-1	Rev. 0
94001	Rev. 0
94012	Rev. 0
94023	Rev. 0
94030	Rev. 0
DCL945-1	Rev. 0
94501	Rev. 0
70102	Rev. 0
60602	Rev. 0
94510 94511 69812 94520 94521 94522 94527	Rev. 0 Rev. 0 Rev. 0 Rev. 0 Rev. 0 Rev. 0
	94001 DCL940-3 94010 94011 94023 94023 94027 DCL945-1 94501 70102 60602 DCL945-2 94502 70202 49301 DCL945-10 94510

AERO DESIGN LTD.

2013 – 39 Avenue N.E., Calgary, Alberta, T2E 6R7

Tel: 403-250-8027 Fax: 403-250-8333 www.aerodesign.ca

Document Control List (Bell 407) Quick Release Cargo Basket Installation	DCL946-1 94601	Rev. 0 Rev. 0
Document Control List (Bell 206L) Quick Release Cargo Basket Installation	DCL946-2 94602	Rev. 0 Rev. 0
Document Control List (Basket Assembly) Cargo Basket Assembly Basket Body Assembly Basket Lid Assembly Basket Components – Hoop Basket Components – Placard	DCL946-10 94610 94611 94612 94620 94627	Rev. 0 Rev. 0
Drawings common to all 3 Basket Components - Spacer Basket Components - Spacer Handle Assembly Handle Bar Assembly Handle Bracket Assembly Handle Lever Handle Bracket Bushing Lid Bracket Bushing Bushing Handle Bar Spring Brace	49215 49216 84255 84261 84262 84265 84267 84272 36273 36274 36275 36277 36278 36280	Rev. 0 Rev. 1 Rev. 1 Rev. 1 Rev. 0 Rev. 0 Rev. 1 Rev. 2 Rev. 3 Rev. 0

Regards,

Jeff Clarke, CET

Encl.

MSI 53 - Review of Supplemental Instructions for Continued Airworthiness

APPENDIX A-3 NORMAL CATEGORY ROTORCRAFT - CAR 527

BLOCK 1

Name of the applicant for the design change approval:

Aero Design Ltd.

Description of the design change:

Installation of Quick Release Cargo Baskets on Bell 206L Series

Certification Basis of design change and revision date:

FAR 27, Amendment 27-30

CAR Standard A527.1(c) Program showing how changes to supplemental ICA made by the applicant or by the manufacturers of products and appliances installed in the aeroplane pursuant to the design change will be distributed:

Section 0-3 of Supplemental ICA (ICA 698.90)

CAR Standard 513.05 (1) (g) (iv): Installation Instructions:

Installation Drawing 70101, 70102, 70201, 70202, 94501, 94502, 94601, 94602

BLOCK 2

Note: Enter "N/A" when no supplemental ICA are needed.

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.2 (a) Manual(s) (a) The Instructions for Continued Airworthiness must be in the form of a manual or manuals as appropriate for the quantity of data to be provided.	ICA ref: Bell 206L/407 Maintenance Manuals, BHT-206L-MM/BHT-407- MM	Supplemental ICA ref: Single Manual (ICA698.90)
A527.2 (b) Practical arrangement (b) The format of the manual or manuals must provide for a practical arrangement.	ICA ref: Bell 206L/407 Maintenance Manuals	Supplemental ICA ref: Arranged in ATA format
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		
A527.3 (a) Rotorcraft maintenance manual or section		
A527.3 (a) (1) (Introduction) (1) Introduction information that includes an explanation of the rotorcraft's features and data to the extent necessary for maintenance or preventive maintenance.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 1	Supplemental ICA ref: Section 0-1
A527.3 (a) (2) (Description) (2) A description of the rotorcraft and its systems and installations including its engines, rotors, and appliances.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 1	Supplemental ICA ref: Section 0-5, 0-6

MSI 53 – Review of Supplemental Instructions for Continued Airworthiness

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (a) (3) Control & Operation (3) Basic control and operation information describing how the rotorcraft components and systems are controlled and how they operate, including any special procedures and limitations that apply.	ICA ref: N/A	Supplemental ICA ref: N/A
A527.3 (a) (4) Servicing (4) Servicing information that covers details regarding servicing points, capacities of tanks, reservoirs, types of fluids to be used, pressures applicable to the various systems, location of access panels for inspection and servicing, locations of lubrication points, lubricants to be used, equipment required for servicing, tow instructions and limitations, mooring, jacking, and levelling information.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 12	Supplemental ICA ref: N/A
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		
A527.3 (b) Maintenance Instructions. A527.3 (b) (1) Scheduling 1) Scheduling information for each part of the rotorcraft and its engines, auxiliary power units, rotors, accessories, instruments, and equipment that provides the recommended periods at which they should be cleaned, inspected, adjusted, tested, and lubricated, and the degree of inspection, the applicable wear tolerances, and work recommended at these periods. However, the applicant may refer to an accessory, instrument, or equipment manufacturer as the source of this information if the applicant shows that the item has an exceptionally high degree of complexity requiring specialized maintenance techniques, test equipment, or expertise. The recommended overhaul periods and necessary cross-references to the Airworthiness Limitations section of the manual must also be included. In addition, the applicant must include an inspection program that includes the frequency and extent of the inspections necessary to provide for the continued airworthiness of the rotorcraft.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (b) (2) Troubleshooting (2) Troubleshooting information describing probable malfunctions, how to recognize those malfunctions, and the remedial action for those malfunctions.	ICA ref: N/A	Supplemental ICA ref: N/A

MSI 53 - Review of Supplemental Instructions for Continued Airworthiness

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (b) (3) Removal/replacement (3) Information describing the order and method of removing and replacing products and parts with any necessary precautions to be taken.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 25	Supplemental ICA ref: Section 25-1 thru 25-6
A527.3 (b) (4) General (4) Other general procedural instructions including procedures for system testing during ground running, symmetry checks, weighing and determining the center of gravity, lifting and shoring, and storage limitations.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 7 and 8	Supplemental ICA ref: Section 25-7
A527.3 (c) Access (c) Diagrams of structural access plates and information needed to gain access for inspections when access plates are not provided.	ICA ref: N/A	Supplemental ICA ref: N/A
A527.3 (d) Special inspections (d) Details for the application of special inspection techniques including radiographic and ultrasonic testing where such processes are specified.	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (e) Protective treatment (e) Information needed to apply protective treatments to the structure after inspection.	ICA ref: Bell Standard Practices Manual BHT-ALL-SPM, Chapter 3	Supplemental ICA ref: Section 5-3
A527.3 (f) Fasteners, torque values, etc (f) All data relative to structural fasteners such as identification, discard recommendations, and torque values.	ICA ref: Bell Standard Practices Manual BHT-ALL-SPM, Chapter 2	Supplemental ICA ref: Section 25-8
A527.3 (g) Special tools (g) A list of special tools needed.	ICA ref: N/A	Supplemental ICA ref: N/A

MSI 53 - Review of Supplemental Instructions for Continued Airworthiness

BLOCK 3

Note: The statement in block 5 does not constitute an approval of the Airworthiness Limitations Section. Airworthiness Limitations differ from other maintenance tasks, in that they are mandatory, as a direct condition of the approval of the type design. They are therefore referenced directly in the approval document itself. However, they must also be included in the Supplemental Instructions for Continued Airworthiness.

be included in the Supplemental Instructions for Continue	ed Airworthiness.							
A527.4 AWL - Separate Section 1 The Instructions for Continued Airworthiness must contain a section titled Airworthiness Limitations that is segregated and clearly distinguishable from the rest of the document. This section must set forth each mandatory replacement time, structural inspection interval, and related structural inspection procedure approved under 527.571. If the Instructions for Continued Airworthiness consist of multiple documents, the section required by this paragraph must be included in the principal manual. This section must contain a legible statement in a prominent location that reads: "The Airworthiness Limitations section is approved by the Minister and specifies maintenance required by any applicable airworthiness or operating rule unless an alternative program has been approved by the Minister."	ICA ref: Bell 206L/407 Maintenance Manual, Chapter 4	Supplemental ICA ref: Chapter 4						
been approved by the Minister." BLOCK 4 – Applicant Statement of Compliance								
	the complete listing of supplemental ICA necess	sary to show compliance with the regulatory standard						
that supports this change in type design. Applicants Signature:	o the complete listing of supplemental for necess	October 26, 2011						
Applicants Name: E. Burgoin, P.Eng, DAR 290M								
BLOCK 5 – Minister's Statement of Acceptability	,							
The design change is adequately supported by existing ICA and/or supplemental ICA, as identified above and is acceptable to the Minister.								
Reviewer's Name: Phone #	Email: M	ail Routing Symbol:						
Signature: Date:		NAPA Number						

STAFF INSTRUCTION 513-008

Flight Test Division Support of Regional Flight Test Activities

Appendix A – Statement of Suitability for Flight Test

Aircraft Type/Model	Bell 407
Registration	
Serial Number	
Description of Design Change(s)	Installation of AERO Design Ltd. Quick Release Cargo Basket
Design Drawings	94501, 94510, 94511, 69812

Statement of Suitability for Flight Test	
This is to certify that I have reviewed the subject design of reasonable assurance that compliance could be found wit requirements, except for those requirements that will be substationsider the aircraft to be safe for flight.	h all applicable desigr
\wedge	
Regional Engineer, Aircraft Certification, or Authorized Person	Date 31 OCT 2061

CONFORMITY INSPECTION RECORD

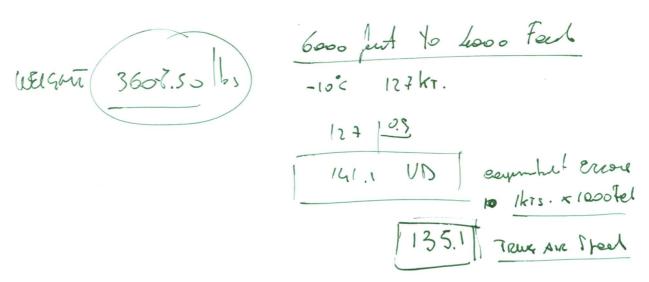
			ZIAII I 11.4	SPECTION	KEOOKD		
Applicant	Aeronautical P	roduct					Title of Change
Aero Design Ltd.							Cargo Basket Installation
	Make	Model		Serial No.	Registration		3 0
	Bell	206L Series / 40	7				
Drawing No.		ant's Inspector		T.C. Inspection			Findings
	Signature	Date	Signature		Date		
94501							
70102							
60602							
/	NoT	INSTALLED					
	APPLICA	ANT'S ATTESTATION					TC INSPECTION
ereby confirm that the	prototype installa	ation for the subject			☐ ACCEPTABL	E	
MODIFICATION,					☐ UNACCEPTA	ABLE	
REPAIR,							
TSO/AP-TC ARTICLI	E						
in conformity with the additional that necessary groul lease check () the approximation of the second that the	applicable installand tests have been been been been been been been be	ntion drawing(s) listed aboren carried out.	ove				
ditional Information:					Remarks:		
Signature:					Signature:		

AERO Design Ltd.

FLIGHT TEST PLAN FTP945.03

BELL 206L, 407

QUICK RELEASE CARGO BASKET



Prepared by: J. Clarke, CET

Approved by: E. Burgoin, P.Eng., DAR 290M

Revision 1, 08 November 2011

AERO Design Ltd.
Engineering Consultants

2013 - 39th Avenue N.E., Calgary, Alberta T2E 6R7

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E-Mail: info@aerodesign.ca

AERO	Design	Ltd.
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FTP945.03

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AERO Design Ltd. FTP945.03

1.0 INTRODUCTION

The Quick Release Cargo Basket is mounted on the right side of the helicopter. The basket is made from steel tubing and expanded steel mesh. It is quickly detachable from the mounting beams that support it. Two configurations are tested, both have similar cross section, one is 65" long, the other 97" long.

2.0 REFERENCE TEXT

AERO Design Ltd. Installation Drawings 94601, 94602 AERO Design Ltd. Flight Manual Supplement FMS701.90, FMS702.90 Bell 407 Rotorcraft Flight Manual Bell 206L Rotorcraft Flight Manual

3.0 FLIGHT TEST OBJECTIVE

Flight testing of the Quick Release Cargo Basket is meant to demonstrate that the installation is free of excessive vibration at speeds from hover thru to V_d , and does not produce undesirable effects to the handling and performance qualities of the helicopter.

This flight testing is in advance of flight testing by Transport Canada Flight Test Division in support of obtaining a Supplemental Type Certificate.

AERO Design Ltd. FTP945.03

4.0 TEST PREPARATION

4.1 Instrument Calibration

The maintenance records of the test helicopter will be checked to ensure the airspeed indicator has been calibrated within the specified time period.

4.2 Equipment

The helicopter will be fitted with the Quick Release Mounting Provisions in accordance with drawing 70102 or 70202, including External Attachment Provisions in accordance with drawing 60602 or 49301 as applicable.

The helicopter will be fitted with the Quick Release Cargo Basket installation in accordance with drawing 94601 or 94602 as applicable.

4.3 Flight Test Crew

Two crew members will be required for the test:

- 1) Pilot with training and experience appropriate to the task of testing this equipment.
- 2) Test observer, either a DAR or a qualified alternate appointed by him, beside the pilot.

All members of the crew will be equipped to communicate via intercom. Seating arrangement of the observer(s) may be limited by loading requirements.

4.4 Documents

These test flights require a FLIGHT PERMIT issued by Transport Canada.

The draft Flight Manual Supplement shall be on board the aircraft.

The Pilot will familiarize himself with the contents of this Test Plan and the Flight Manual Supplement prior to flight.

4.5 Weight and Balance

The helicopter will be loaded with sufficient fuel and ballast to produce the following conditions for flight:

- A) Helicopter un-modified*, with weight and balance within limits specified in the flight manual
- B) Cargo Basket configuration 94601/02-01 installed, basket loaded with 300 lbs.

*Note: External attachment provisions and Quick Release Mounting Provisions may be installed.

C of G must remain within the limits specified in the Flight Manual.

Loading information specific to the Quick Release Cargo Basket is contained in the Flight Manual Supplement, FMS701.90 or FMS702.90. The basket will be loaded to 300 lbs.

5.0 FLIGHT TESTS

One flight is required for each of the conditions listed in 4.5 above.

The flights are to be conducted as follows:

Take off and establish cruise at 50 kts. Increase speed in 10 kt increments up to Vne. Recover from Vne, then accelerate to Vd (1.1 x Vne).

Vne as follows:

OAT	PRESSURE ALTITUDE FT x 1000											
°C	0	2	4	6	8	10	12	14	16	18	20	
52	137											
45	139	132	125									
40	140	133	126	119								
35	140	135	128	120	113							
30	140	137	129	122	115	108						
25	140	138	131	124	116	109	102	95				
20	140	140	133	125	118	111	103	96	89			
0	140	140	140	132	125	117	110	103	95	88		
-25	140	140	140	135	130	125	119	111	104	97	89	
-40	137	133	128	123	118	114	110	105	101	97	93	

407:

300/23

AIRSPEED LIMITATIONS O INTERNAL LOADING											
HP FT	0	2	4	6	8	10	12	14	16	18	20
OAT °C		VNE ~ IAS ~ KTS									
52	130	-	-	<u> </u>				1 -			.,,
45	130	125	118	- ax	.w.	-	-	-	-	*	vac.
40	130	127	120	112	-	-			-	-	-
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20	130	130	127	119	111	104	96	35	82	~	-
0	130	130	130	126	119	110	103	95	88	81	73
- 25	130	130	130	129	124	120	112	104	97	95	82
-40	129	124	120	117	112	108	104	100	96	92	87
- 50	118	114	110	105	102	98	95	91	88	84	82
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52	130	-	-	**					20.	**	-2006 - 2006
45	130	125	120	en:	-40	-	-	~4	-	-	-
40	130	128	122	115	-	-	-	-			
30	130	130	124	118	112	106	-	I-I	-	-	
25	130	130	125	119	113	107	101	95	1-1	- }	-
20	130	130	127	121	115	108	102	96	90	995	-
0	130	130	130	127	121	114	108	101	95	89	82
- 25	130	130	130	129	124	120	115	109	103	97	91
-40	129	124	150	117	112	108	104	100	96	92	69
- 50	118	114	110	106	102	95	98	91	88	54	82

AMOUR 2050

127. -10°C.

127 F)

800 (90% 100 77%

206L-3:

AERO Design Ltd. FTP945.03

Bell 407: Flight tests to take place in vicinity of Vancouver International Airport. Flights expected to take place between 500 and 2000 feet AGL, temperature expected to be between 10 and 0° C. Vne = 140 KIAS, Vd = 140 x 1.11 = 155 KIAS.

Bell 206L-3: Flight tests to take place in vicinity of Springbank Airport. Flights expected to take place between 500 and 2000 feet AGL (4400 to 5900 pressure altitude), temperature expected to be between -5° C and -15° C. Vne = 130 KIAS, Vd = 130 x 1.11 = 144 KIAS.

Flight testing performed by a Transport Canada Flight Test Division Pilot may deviate from this test plan at the discretion of the test pilot in order to complete a Transport Canada flight test report.

Bell 407

Configuration

6.0 RECORDING OF RESULTS

Check (✓) if acceptable. Record Vne/Vd achieved.



3								1-0	100	*110			
Un-modified	✓	✓	✓	✓	✓	✓	✓	✓	✓	140	155		
94601-01 Basket	1	✓	✓	✓	✓	✓	1	1	✓	140	155		
Observations:	E.												
	1.										- 1106		ED
D. II OOOI		54	00	_		->			171.5		60	PREST	TET
Bell 206L	F0		70	00		peed (I		100		135		AL	TA
Configuration 94601-02 Basket	50 6 ^K	60 0K	70 0 K.	80 &K	90 0K	100	110 6K	120	Vne	Vd		16	281
Observations:	-	VEE							1			5	1500
MAS	000	- 10	4 9	S Kr	OT)		1 200					
					Ki								

139 FTS DECENDING TRU

Airspeed (KIAS)
50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 130 | Vne | Vd





Canadä

and the contract of the contra	
Current Information, directly from the C	Official Canadian Civil Aircraft Register database.
Aircraft Information	
Mark: C-FZSS	
Common Name: Bell	Model Name: 206L-3
Serial No: 51227	C. C
Basis for Eligibility for Registration: Certificate - H92	CAR Standard 507.02, 507.03 - Type
Category: Helicopter	Max take-off weight: 1882.41 kgs
Engine: 1, Turbo Shaft	AND TO THE POST OF ANY POST OF ANY AND AND AND ANY AND
24-bit address: 11000000010000111	11101011
Regional Office: Winnipeg	Year Imported: 2008
Base of Operations: CANADA, Alb	perta, Calgary Springbank
Manufacturer Information	
Manufacturer: Bell Helicopter TEXT	RON A Division of Textron Canada Ltd
Country of manufacture: CANADA	Year of Manufacture: 1987
Dagistration Information	
Registration Information	
Type of Registration: Commercial	
	TO THE PARTY OF TH
Type of Registration: Commercial	
Type of Registration: Commercial Owner Registered Since: 2011-05-1	sued: 2011-05-10
Type of Registration: Commercial Owner Registered Since: 2011-05-1 Latest Certificate of Registration Iss	sued: 2011-05-10
Type of Registration: Commercial Owner Registered Since: 2011-05-1 Latest Certificate of Registration Iss Last Registered Owner Information	sued: 2011-05-10
Type of Registration: Commercial Owner Registered Since: 2011-05-1 Latest Certificate of Registration Iss Last Registered Owner Information Name: LR HELICOPTERS INC.	sued: 2011-05-10
Type of Registration: Commercial Owner Registered Since: 2011-05-1 Latest Certificate of Registration Iss Last Registered Owner Information Name: LR HELICOPTERS INC. Address: 135 MacLaurin Drive	sued: 2011-05-10
Type of Registration: Commercial Owner Registered Since: 2011-05-1 Latest Certificate of Registration Iss Last Registered Owner Information Name: LR HELICOPTERS INC. Address: 135 MacLaurin Drive Spring Bank Airport	sued: 2011-05-10
Type of Registration: Commercial Owner Registered Since: 2011-05-1 Latest Certificate of Registration Iss Last Registered Owner Information Name: LR HELICOPTERS INC. Address: 135 MacLaurin Drive Spring Bank Airport City: Calgary	Province/State: Alberta

AERO Design Ltd.

FLIGHT TEST PLAN FTP945.03

BELL 206L, 407

QUICK RELEASE CARGO BASKET

Prepared by: J. Clarke, CET

Approved by: E. Burgoin, P.Eng., DAR 290M

Revision 1, 08 November 2011

<u>AERO Design Ltd.</u> Engineering Consultants 2013 – 39th Avenue N.E., Calgary, Alberta T2E 6R7

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E-Mail: info@aerodesign.ca

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AERO Design Ltd.

FTP945.03

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4.2	Equipment	4
4.3	Flight Test Crew	4
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6.0	RECORDING OF RESULTS	7

AERO Design Ltd. FTP945.03

1.0 INTRODUCTION

The Quick Release Cargo Basket is mounted on the right side of the helicopter. The basket is made from steel tubing and expanded steel mesh. It is quickly detachable from the mounting beams that support it. Two configurations are tested, both have similar cross section, one is 65" long, the other 97" long.

2.0 REFERENCE TEXT

AERO Design Ltd. Installation Drawings 94601, 94602 AERO Design Ltd. Flight Manual Supplement FMS701.90, FMS702.90 Bell 407 Rotorcraft Flight Manual Bell 206L Rotorcraft Flight Manual

3.0 FLIGHT TEST OBJECTIVE

Flight testing of the Quick Release Cargo Basket is meant to demonstrate that the installation is free of excessive vibration at speeds from hover thru to V_d , and does not produce undesirable effects to the handling and performance qualities of the helicopter.

This flight testing is in advance of flight testing by Transport Canada Flight Test Division in support of obtaining a Supplemental Type Certificate.

AERO Design Ltd. FTP945.03

4.0 TEST PREPARATION

4.1 Instrument Calibration

The maintenance records of the test helicopter will be checked to ensure the airspeed indicator has been calibrated within the specified time period.

4.2 Equipment

The helicopter will be fitted with the Quick Release Mounting Provisions in accordance with drawing 70102 or 70202, including External Attachment Provisions in accordance with drawing 60602 or 49301 as applicable.

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Two crew members will be required for the test:

- 1) Pilot with training and experience appropriate to the task of testing this equipment.
- 2) Test observer, either a DAR or a qualified alternate appointed by him, beside the pilot.

All members of the crew will be equipped to communicate via intercom.

Seating arrangement of the observer(s) may be limited by loading requirements.

4.4 Documents

These test flights require a FLIGHT PERMIT issued by Transport Canada.

The draft Flight Manual Supplement shall be on board the aircraft.

The Pilot will familiarize himself with the contents of this Test Plan and the Flight Manual Supplement prior to flight.

4.5 Weight and Balance

The helicopter will be loaded with sufficient fuel and ballast to produce the following conditions for flight:

- A) Helicopter un-modified*, with weight and balance within limits specified in the flight manual
- B) Cargo Basket configuration 94601/02-01 installed, basket loaded with 300 lbs.

*Note: External attachment provisions and Quick Release Mounting Provisions may be installed.

C of G must remain within the limits specified in the Flight Manual.

Loading information specific to the Quick Release Cargo Basket is contained in the Flight Manual Supplement, FMS701.90 or FMS702.90. The basket will be loaded to 300 lbs.

5.0 FLIGHT TESTS

One flight is required for each of the conditions listed in 4.5 above.

The flights are to be conducted as follows:

Take off and establish cruise at 50 kts. Increase speed in 10 kt increments up to Vne. Recover from Vne, then accelerate to Vd (1.1 x Vne).

Vne as follows:

OAT	PRESSURE ALTITUDE FT x 1000													
°C	0	2	4	6	8	10	12	14	16	18	20			
52	137													
45	139	132	125											
40	140	133	126	119										
35	140	135	128	120	113									
30	140	137	129	122	115	108								
25	140	138	131	124	116	109	102	95						
20	140	140	133	125	118	111	103	96	89					
0	140	140	140	132	125	117	110	103	95	88				
-25	140	140	140	135	130	125	119	111	104	97	89			
-40	137	133	128	123	118	114	110	105	101	97	93			

407:

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HP FT 1000	0	2	4	6	8	10	12	14	16	18	20
OAT °C			1	VNE	~	IAS	~	KTS	;		B0001000000000000000000000000000000000
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25	130	130	125	119	113	107	101	95		-	-
20	130	130	127	121	115	108	102	96	90	***	***
0	130	130	130	127	121	114	108	101	95	89	85
- 25	130	130	130	129	124	120	115	109	103	97	91
- 40	129	124	120	117	112	108	104	100	96	92	69
- 50	115	114	110	106	102	98	95	91	88	84	82

206L-3:

Bell 407: Flight tests to take place in vicinity of Vancouver International Airport. Flights expected to take place between 500 and 2000 feet AGL, temperature expected to be between 10 and 0° C. Vne = 140 KIAS, Vd = 140 x 1.11 = 155 KIAS.

Bell 206L-3: Flight tests to take place in vicinity of Springbank Airport. Flights expected to take place between 500 and 2000 feet AGL (4400 to 5900 pressure altitude), temperature expected to be between -5°C and -15°C. Vne = 130 KIAS, Vd = 130 x 1.11 = 144 KIAS.

Flight testing performed by a Transport Canada Flight Test Division Pilot may deviate from this test plan at the discretion of the test pilot in order to complete a Transport Canada flight test report.

6.0 RECORDING OF RESULTS

Check (✓) if acceptable. Record Vne/Vd achieved.

Bell 407		Airspeed (KIAS)									
Configuration	50	60	70	80	90	100	110	120	130	Vne	Vd
Un-modified	✓	✓	√	✓	✓	✓	√	✓	✓	140	155
94601-01 Basket	✓	✓	√	✓	✓	✓	√	✓	✓	140	155

Observations:	Obse	rvat	ion	S:
---------------	------	------	-----	----

Bell 206L		Airspeed (KIAS)									
Configuration	50	60	70	80	90	100	110	120	Vne	Vd	
94601-02 Basket	✓	✓	✓	✓	✓	✓	✓	✓	127	141	

Observations:

Vne @ 6000 feet, -10°C = 127 KIAS, Vd = 141 KIAS

All speeds up to 105 KIAS @ 5500 feet

Max continuous V_H 95 knots

100% = 104 KIAS

104% = 105 KIAS

Max speed 141 KIAS descending from 5500 through 4700 feet

Basket viewed through mirror



BH206L3 S/N 51227 Weight and Balance configuration TAKE-OFF (With amount of Fuel Intended for the Flight)

Original W&B 24-July-09	Weight	Arm	Moment	Lat. Arm	Momen
BASIC WEIGHT	2518.50	132.96	334867.02	0.03	72.0
CONFIGURATIONS					
	Weight	Arm	Moment	Lat. Arm	Momen
TBD	89.00	122.00	10856.00	32.50	2896.0
TBD	0.00	0.00	0.00	-19.00	0.0
Utility Basket	275.00	121.00	33275.00	34.00	9350.00
Folding Litter (2)	0.00	0.00	0.00	0.00	0.00
Duals	0.00	0.00	0.00	0.00	0.00
Snow Deflectors	0.00	0.00	0.00	0.00	0.0
PILOT VARIABLES	2882.50	131.48	378998.02	4.27	12318.0
NEOT VALUEDEZO					
PILOT	170.00	65.00	11050.00	14.00	2380.0
PAX FORWARD	230.00	65.00	14950.00	-11.00	-2530.0
MID PAX LEFT	0.00	91.00	0.00	-13.00	0.0
MID PAX RIGHT	0.00	91.00	0.00	13.00	0.0
AFT PAX LEFT	25.00	129.00	3225.00	-15.50	-387.5
AFT PAX CENTRE	0.00	129.00	0.00	0.00	0.0
AFT PAX RIGHT	0.00	129.00	0.00	15.50	0.0
BAGGAGE	0.00	174.00	0.00	0.00	0.0
Hook Load	0.00	121.00	0.00	0.00	0.0
OIL	13.00	205.00	2665.00	0.00	0.00
FUEL	308.00	131.70	40563.60	0.00	0.00
	Weight	Arm	Moment	Lat. Arm	Momen
TOTALS	3628.50	124.42	451451.62	3.25	11780.51

File #:
FTP945.03
Date :
17-Nov-11
Base:
CYBW
Location:
Aircraft call sign:
C-FZSS
Pilot Name:
Luca Ribetti
License No.
CH803447
·h
signature

SELECTIVE PASSENGER LOADING

WHEN BOTH CREW SEATS ARE OCCUPIED ONLY ONE (1) MID PASSENGER IS PERMITTED UNLESS THERE ARE TWO (2) AFT PASSENGERS.

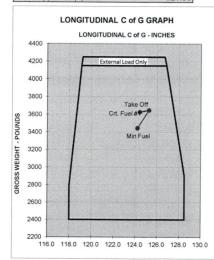
Notes:

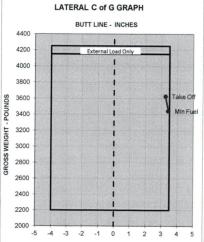
Baggage includes 12 lbs of Survival Gear

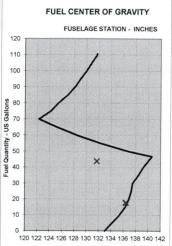
To change Fuel config: 1. Change Fuel US gal 2. Change Fuel long arm

MAXIMUM WEIGHT (Internal)	4150.00
UNDER(-)/OVER(+) MAX	-521.50
MAXIMUM WEIGHT (External)	4250.00
UNDER(-)/OVER(+) MAX	-621 50

US GAL FUEL	44.0	39.75%	inci.
ENDURANCE	1.23	Hours	Rng. Ext.







LANDING MINIMUM FUEL					
FUEL	125.0	136.4	17048.0	0.0	0.0
	Weight	Arm	Moment	Lat. Arm	Moment
TOTALS	3445.5	124.20	427936.0	3.4	11780.5
MAXIMUM WEIGHT	4150.0	1	US GAL FUEL	17.9 16.13%	ncl.
UNDER(-)/OVER(+) MAX	-704.5		ENDURANCE		Rng. Ext.

AERO Design Ltd.

FLIGHT TEST PLAN FTP945.03

BELL 407

QUICK RELEASE CARGO BASKET

Prepared by: J. Clarke, CET

Approved by: E. Burgoin, P.Eng., DAR 290M

Revision 0, 20 October 2011

<u>AERO Design Ltd.</u> Engineering Consultants 2013 – 39th Avenue N.E., Calgary, Alberta T2E 6R7

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4.5	Weight and Balance	4
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6.0	RECORDING OF RESULTS	6

1.0 INTRODUCTION

The Quick Release Cargo Basket is mounted on the right side of the helicopter. The basket is made from steel tubing and expanded steel mesh. It is quickly detachable from the mounting beams that support it. Two configurations are tested, both have similar cross section, one is 65" long, the other 97" long.

2.0 REFERENCE TEXT

AERO Design Ltd. Installation Drawings 94501, 94601 AERO Design Ltd. Flight Manual Supplement FMS701.90 Bell 407 Rotorcraft Flight Manual

3.0 FLIGHT TEST OBJECTIVE

Flight testing of the Quick Release Cargo Basket is meant to demonstrate that the installation is free of excessive vibration at speeds from hover thru to V_d , and does not produce undesirable effects to the handling and performance qualities of the helicopter.

This flight testing is in advance of flight testing by Transport Canada Flight Test Division in support of obtaining a Supplemental Type Certificate.

4.0 TEST PREPARATION

4.1 Instrument Calibration

The maintenance records of the test helicopter will be checked to ensure the airspeed indicator has been calibrated within the specified time period.

4.2 Equipment

The helicopter will be fitted with the Quick Release Mounting Provisions in accordance with drawing 70102, including External Attachment Provisions in accordance with drawing 60602.

The helicopter will be fitted with the Quick Release Cargo Basket installation in accordance with drawing 94501 or 94601 as applicable.

4.3 Flight Test Crew

Two crew members will be required for the test:

- 1) Pilot with training and experience appropriate to the task of testing this equipment.
- 2) Test observer, either a DAR or a qualified alternate appointed by him, beside the pilot.

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- A) Helicopter un-modified*, with weight and balance within limits specified in the flight manual
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- C) Cargo Basket configuration 94601-01 installed, basket loaded with 300 lbs.

*Note: External attachment provisions and Quick Release Mounting Provisions may be installed.

C of G must remain within the limits specified in the Flight Manual.

Loading information specific to the Quick Release Cargo Basket is contained in the Flight Manual Supplement, FMS701.90. The basket will be loaded to 300 lbs.

5.0 FLIGHT TESTS

One flight is required for each of the conditions listed in 4.5 above.

The flights are to be conducted as follows:

Take off and establish cruise at 50 kts. Increase speed in 10 kt increments up to Vne. Recover from Vne, then accelerate to Vd (1.1 x Vne).

Vne as follows:

		- 1	407 A	IRSPE	ED LI	MITAT	IONS -	KIAS							
OAT	Sec.	PRESSURE ALTITUDE FT x 1000													
°C	0	2	4	6	8	10	12	14	16	18	20				
52	137														
45	139	132	125												
40	140	133	126	119											
35	140	135	128	120	113										
30	140	137	129	122	115	108									
25	140	138	131	124	116	109	102	95							
20	140	140	133	125	118	111	103	96	89						
0	140	140	140	132	125	117	110	103	95	88					
-25	140	140	140	135	130	125	119	111	104	97	89				
-40	137	133	128	123	118	114	110	105	101	97	93				
		M	AXIMU	JM AU	TORO	ATION	VNE 1	100 KI	45						

Flight tests to take place in vicinity of Vancouver International Airport. Flights expected to take place between 500 and 2000 feet AGL, temperature expected to be between 10 and 0° C. Vne = 140 KIAS, Vd = 140 x 1.11 = 155 KIAS.

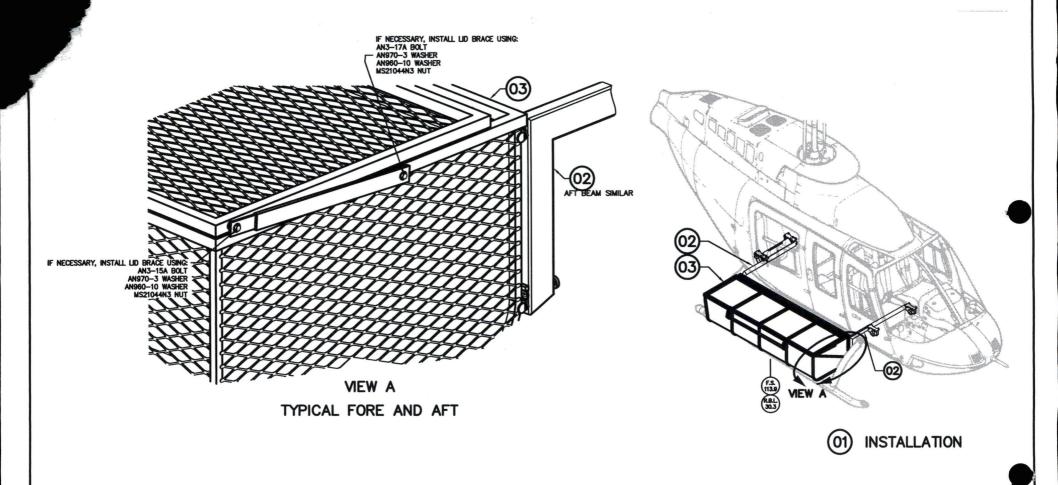
Flight testing performed by a Transport Canada Flight Test Division Pilot may deviate from this test plan at the discretion of the test pilot in order to complete a Transport Canada flight test report.

6.0 RECORDING OF RESULTS

Check (✓) if acceptable. Record Vne/Vd achieved.

^					Air	speed	(kts)				
Configuration	50	60	70	80	90	100	110	120	130	Vne	Vd
Un-modified											
94501-01 basket											
94601-01 Basket			,								

Observations:			



94510-01	03	CARGO BASKET ASSEMBLY	APPR	ROVALS	DATE	ΛΙ	חסק	DESIGN I	TT	
			DRAWNI			AL	I I	DESIGN I	IID.	
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	LIST C	F MATERIALS		. DONGONY		tel: (403) 250-802	7 fax	: (403) 250-8333	www.aero	design.ca
—— NOTICE —— THIS DRAWING CONTAINS INFORMATION AND DATA WHICH IS PROPRIETARY TO AERO DESIGN LTD. THIS DRAWING, OR ANY PORTION THEREOF, MAY NOT BE REPRODUCED,			TOLERANCES ON:			BELL 407 QUICK RELEASE CARGO BASKET INSTALLATION				
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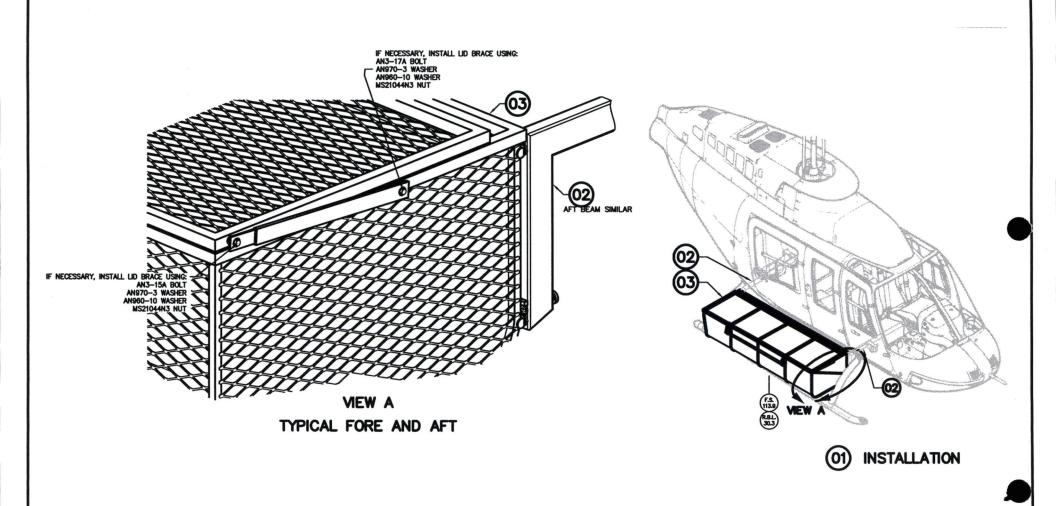
REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
0	CREATED FROM 70101, REV. 3		

NOTES:

- 1. EXTERNAL ATTACHMENT PROVISIONS INSTALLED IN ACCORDANCE WITH DRAWING 60602 IS MANDATORY PREREQUISITE FOR THIS INSTALLATION. QUICK RELEASE MOUNTING PROVISIONS INSTALLED IN ACCORDANCE WITH DRAWING 70102 IS MANDATORY PREREQUISITE FOR THIS INSTALLATION.
- 2. HIGH SKID GEAR INSTALLATION IS MANDATORY PREREQUISITE FOR THIS INSTALLATION.
- 3. SEE FLIGHT MANUAL SUPPLEMENT, FMS701.90, FOR LIMITATIONS ON HELICOPTER OPERATIONS WITH CARGO BASKET INSTALLED.
- 4. SEE INSTRUCTIONS FOR CONTINUED AIRWORTHINESS, ICA698.90, FOR MAINTENANCE INFORMATION.

	WEIGHT	AND	BALANC	E		
ITEM	DESCRIPTION	WEIGHT (LB)	LONGIT ARM (IN)	TUDINAL MOMENT (LB-IN)	LAT ARM (IN)	ERAL MOMENT (LB-IN)
01	CARGO BASKET INSTALLATION (CARGO BASKET AND MOUNTING PRO	70.9 OVISIONS)	112.6	7979	32.4	2294
	CARGO (CENTRE OF BASKET)	300 MAX	114.1	34230	40.0	12000

APPROVALS	DATE	A F	RO	DESIGN I	TD.		
DRAWN: JEFF CLARKE	19 SEPT 2011	CONSULTING EN	GINEERS, T	RANSPORT CANADA AP	PROVALS, D		
CHECKED: E. BURGOIN		2013 - 39TH . tel: (403) 250-802		E., CALGARY, ALBERTA, (403) 250-8333		2E 6R7 design.ca	
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1	94510-01 70202-01	03	02 PROVISIONS INSTALLATION		PPROVALS	DATE	AERO DESIGN LTD.						
	94502-01	01	INSTALLATION	DRAWN:	JEFF CLARKE	19 SEPT 2011							
01	PART NO.	ITEM	DESCRIPTION	CHECKED:	E. BURGOIN		2013 - 39TH AVENUE N.E., CALGARY, ALBERTA, CANA			550 HV-50 LLDH 1511-04111-04			
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NOTES:

- 1. EXTERNAL ATTACHMENT PROVISIONS INSTALLED IN ACCORDANCE WITH DRAWING 49301 IS MANDATORY PREREQUISITE FOR THIS INSTALLATION. QUICK RELEASE MOUNTING PROVISIONS INSTALLED IN ACCORDANCE WITH DRAWING 70202 IS MANDATORY PREREQUISITE FOR THIS INSTALLATION.
- 2. HIGH SKID GEAR INSTALLATION IS MANDATORY PREREQUISITE FOR THIS INSTALLATION.
- 3. SEE FLIGHT MANUAL SUPPLEMENT, FMS702.90, FOR LIMITATIONS ON HELICOPTER OPERATIONS WITH CARGO BASKET INSTALLED.
- 4. SEE INSTRUCTIONS FOR CONTINUED AIRWORTHINESS, ICA698.90, FOR MAINTENANCE INFORMATION.

	WEIGHT	AND	BALANC	Ε		
ITEM	DESCRIPTION	WEIGHT (LB)	LONGIT ARM (IN)	UDINAL MOMENT (LB-IN)	LAT ARM (IN)	ERAL MOMENT (LB-IN)
01	CARGO BASKET INSTALLATION (CARGO BASKET AND MOUNTING PRO	73.8 (MSIONS)	114.3	8435	31.1	2294
	CARGO (CENTRE OF BASKET)	300 MAX	114.1	34230	40.0	12000

APPROVALS	DATE	AF	$\overline{c}RO$	DESIGN I	TD.		
DRAWN: JEFF CLARKE	19 SEPT 2011	CONSULTING EN	GINEERS, T	RANSPORT CANADA API	PROVALS, D		
CHECKED: E. BURGOIN		2013 - 39TH tel: (403) 250-802		E., CALGARY, ALBERTA, (403) 250-8333	150 to 200 to 20	2E 6R7 design.ca	
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x.x ±0.03		SHEET 2 OF 2	A4	94502	0		



1100-9700 Jasper Avenue Edmonton, Alberta T5J 4E6

Your file

Votre reference

C-12-0087 SH00-48

Department of Transportation Federal Aviation Administration New York Aircraft Certification Office ANE-170 Suite 410, 1600 Stewart Avenue Westbury, NY 11590 USA

February 13, 2012

Attention: Anthony Socias, Manager

SUBJECT:

Application for Reissue of FAA Supplemental Type Certificate SR02253NY

Cargo Basket Installation

We have received an application from a Canadian resident, Aero Design Ltd., for the reissue of a Canadian Supplemental Type Certificate (STC) and existing FAA STC for Installation of External Attachment Provisions and Cargo Basket on Bell 206L, L-1, L-3, L-4, 407 model helicopter .

We have reviewed the applicant's submission and certify that the design change complies with the basis of certification specified in Canadian Type Certificate SR02253NY. We have therefore issued STC SH00-48, Issue 9 dated November 30, 2011. We also confirm that compliance is demonstrated with FAA Type Certificate H2SW, unless additional technical conditions are applied by the FAA.

Please consider this to be a formal application for the re-issue of FAA STC SR02253NY under the provision of the Canada/U.S. Bilateral Airworthiness Agreement. In support of this application, a CD-Rom is enclosed containing the document package as outlined in letter dated 25 January 2012, from Aero Design Ltd., also attached.

Yours truly,

√Staal

Engineering Technologist, Engineering

Civil Aviation

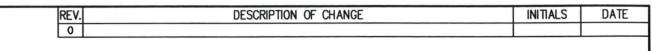
Prairie and Northern Region

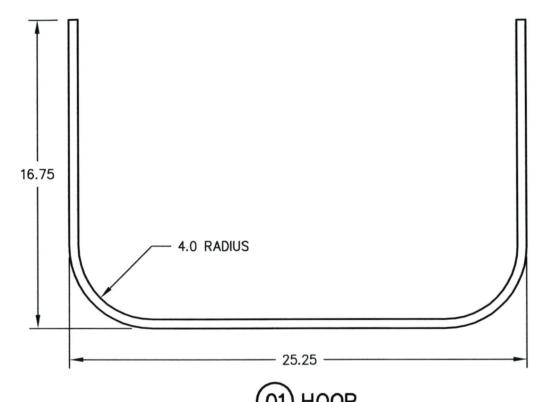
Phone: 780-495-5227 Facs: 780-495-7963

enclosure(s)

Aero Design Ltd.



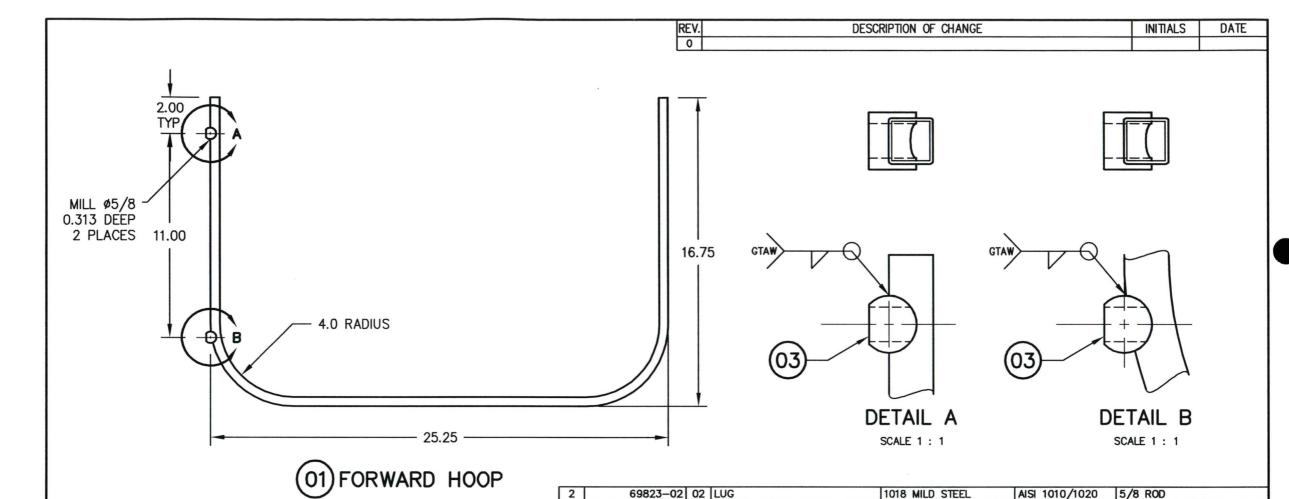




NOTES:

- 1. REMOVE ALL BURRS AND SHARP EDGES.
- 2. DRILL 3/32" VENT HOLE IN BOTTOM OF HOOPS FOR VENTING WELD GASES.

	94520	0-01	01	END HOOP		4130 STEEL COND.	N I	/IL-T-6736	1/2 x	0.035 SQR	. TUBE	
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94521-01 01 FORWARD HOOP

DECIMALS

 $x.xxx \pm 0.010$

X.XX ± 0.03

 $X.X \pm 0.1$

NOTES:

- 1. REMOVE ALL BURRS AND SHARP EDGES.
- 2. DRILL 3/32" VENT HOLE IN BOTTOM OF HOOPS FOR VENTING WELD GASES.
- 3. WELDING OF LUGS TO BE COMPLETED BY GTAW METHOD TO AMS2685C. WELDING ROD SHALL CONFORM TO ER70S-2 OR EQUIVALENT.

01	PART NO	. ITEM	DES	CRIPTION	MATERIAL	MATERIAL SPEC	STOCK SIZE			
QTY					LIST OF MATERIALS					
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SCALE 1:5

SHEET 1 OF 1

ANGLES

±1/2°

4130 STEEL COND. N

MIL-T-6736

DWG. SIZE DWG. NO.

94521

1/2 x 0.035 SQR. TUBE

AERO Design Ltd.

ENGINEERING REPORT ER842.01

QUICK RELEASE CARGO BASKET LARGE BASKETS HANDLE AND LID

Prepared by: Jeff Clarke, CET

Approved by: E. Burgoin, P.Eng., DAR 290M

Revision 0, 14 October 2011

AERO Design Ltd.
Engineering Consultants
www.aerodesign.ca

2013 – 39th Avenue N.E., Calgary, Alberta T2E 6R7

Phone: (403) 250-8027

Fax: (403) 250-8333

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AERO Design Ltd.

ER842.01

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1.0 INTRODUCTION

New configurations of Aero Design Ltd. cargo baskets have larger lids and longer handles than previously approved. This report demonstrates that the existing configuration is sufficient to sustain the applied loading conditions of the new larger baskets.

2.0 REFERENCE TEXT

AERO Design Ltd. Drawings 84255, 94012, 94612

3.0 BASIS OF CERTIFICATION

Bell 206L / 407

TCDS H-92 (Highest of Bell 206L series and 407):

FAR part 27, dated October 2, 1964 Amendment 27-1 through 27-30; Paragraph 27.561(b)(3) at Amdt 27-24; Section 27.563 at Amdt. 27-25; Section 27.785 at Amdt 27-24; Section 27.1093 at amendment 27-8; and Section 27.173 and 27.175 at amendment 27-1.

Exemptions to FAR 27 are the deletion of sections: 27.562, 27.1195, and 27.952(b)(1).

Eurocopter AS350 / AS355

TCDS H-83 & H-87:

FAR part 27, dated October 2, 1964 Amendment 27-1 through 27-20, with exceptions as noted on the TCDS for the AS355NP.

This report demonstrates that the handle configuration 84255 for Quick Release Cargo Baskets complies with the original basis of certification for the applicable model.

4.0 LOAD FACTORS

FAR 27.561(b)(3)

Ultimate Upward Emergency Landing Load Factor:

$$n_{e up} := 1.5$$

Ultimate Forward Emergency Landing Load Factor:

n
 e fwd := 4.0

Ultimate Sideward Emergency Landing Load Factor:

$$n_{e_side} = 2.0$$

Ultimate Downward Emergency Landing Load Factor: $n_{e\ down} = 4.0$

$$n_{e \text{ down}} := 4.0$$

FAR 27.625

Fitting Factor (does not apply to articles being tested): $n_{ff} = 1.15$

FAR 27.303

Safety Factor:

$$n_{sf} := 1.5$$

FAR 27.337(a)

Limit Positive Maneuvering LoadFactor:

$$n_{man} := 3.5$$

n man ult = n man n sf

Ultimate Positive Maneuvering LoadFactor:

$$n_{man ult} = 5.25$$

Limit Negative Maneuvering LoadFactor:

$$n \max_{n \in \mathbb{Z}} u^{-n} \max_{n \in \mathbb{Z}} n \cdot n$$

n $_{man\ neg\ u}$:= n $_{man\ n}\cdot n$ $_{sf}$ Ultimate Negative Maneuvering LoadFactor:

$$n_{\text{man neg u}} = -1.5$$

CRITICAL ULTIMATE LOAD FACTORS:

Downward:

Ultimate Positive Maneuvering LoadFactor:

 $n_{man_ult} = 5.25$

Forward:

Ultimate Forward Emergency Landing Load Factor:

$$n_{e \text{ fwd}} = 4.00$$

Sideward:

Ultimate Sideward Emergency Landing Load Factor:

$$n_{e \text{ side}} = 2.00$$

Upward:

Ultimate Upward Emergency Landing Load Factor:

$$n_{e up} = 1.50$$

The basket is mounted below and to one side of the cabin. Forward deflection or failure in the emergency landing condition does not endanger the occupants. Likewise, Sideward and Upward deflection or failure of the basket in the emergency landing condition do not endanger the occupants.

Sideward and Upward Load Factors are used in the tests to ensure that the lid of the basket does not open in flight.

5.0 STRUCTURAL COMPLIANCE

This report only demonstrates compliance with the emergency landing upward and sideward load conditions.

Structural compliance is demonstrated by test. A Bell 206L/407 Cargo Basket (94610-01) is hung upside down on a set of mounting beams. The upward load is applied by stacking bags of lead shot (25 lbs each) evenly over the lid of the basket and closing the lid.

5.1 Upward Condition

Structural compliance is demonstrated by test. The lid must remain latched under the ultimate upward load condition. A Bell 206L/407 Cargo Basket (94610-01) was hung upside down on a set of mounting beams. The upward load was applied by stacking bags of lead shot (25 lbs each) evenly over the lid of the basket and closing the lid.

 W_{cargo} = 300 lbs P_{up} = W_{cargo} x n_{e_up} P_{up} = 300 lbs x 1.5 = 450 lbs

The lid was loaded with 18 bags of lead shot (450 lbs total).

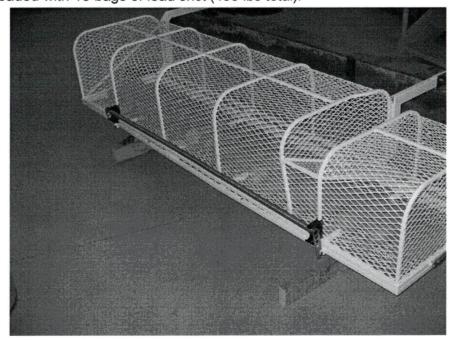


Figure 5.1.1 – Ultimate Upward Load – 450 lbs

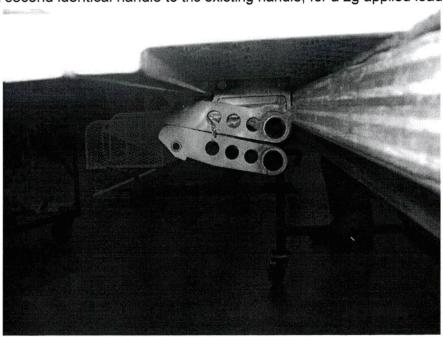


Figure 5.1.2 – Ultimate Upward Load – 450 lbs

The load was applied for more than 3 seconds. The load was removed and the lid, handle and handle latches were checked for permanent deformation. There was no deformation found. The handle configuration is acceptable for use with the cargo baskets with larger lids.

5.2 Sideward Condition

Structural compliance is demonstrated by test. The handle must remain latched under the ultimate sideward load condition. A Eurocopter AS350 Cargo Basket (94010-01) was set on a table with the outboard side down, handle hanging off the table. The sideward load was applied by attaching a second identical handle to the existing handle, for a 2g applied load.



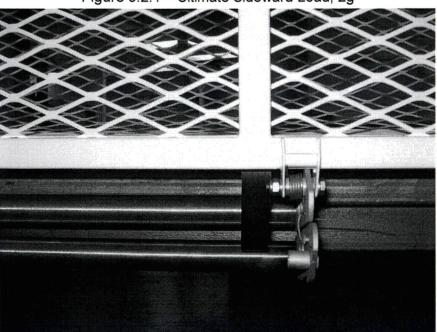


Figure 5.2.1 – Ultimate Sideward Load, 2g

Figure 5.2.2 – Ultimate Sideward Load, 2g

The load was applied for more than 3 seconds. The handle remained latched. The load was removed and handle and handle latches were checked for permanent deformation. There was no deformation found.

The handle configuration is acceptable for use with the cargo baskets with larger lids.

AERO Design Ltd.

ENGINEERING REPORT ER945.01

BELL 206L SERIES, 407

QUICK RELEASE CARGO BASKET LARGER CROSS SECTION

Prepared by: Jeff Clarke, CET

Approved by: E. Burgoin, P.Eng., DAR 290M

Revision 0, 14 October 2011

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AERO Design Ltd.

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1.0 INTRODUCTION

Operators of the existing AERO Design Quick Release Cargo Basket are requesting a basket with greater capacity while maintaining the existing mounting location. A new basket has been fabricated that is the same length as the original basket, but is 1" taller and 3.25" wider. The ground clearance from the original configuration has been maintained.

In order to remain competitive, the load capacity of the basket is increased to 300 lbs. This report will demonstrate that the existing beams are capable of supporting a 300 lb cargo load with the larger basket.

2.0 REFERENCE TEXT

AERO Design Ltd. Reports ER698.01 ER698.02, TP698.03, ER698.04, ER698.06, ER842.01 AERO Design Ltd. Drawings 69830, 69831, 94511

3.0 BASIS OF CERTIFICATION

TCDS H-92 (Highest of Bell 206L series and 407):

FAR part 27, dated October 2, 1964 Amendment 27-1 through 27-30; Paragraph 27.561(b)(3) at Amdt 27-24; Section 27.563 at Amdt. 27-25; Section 27.785 at Amdt 27-24; Section 27.1093 at amendment 27-8; and Section 27.173 and 27.175 at amendment 27-1.

Exemptions to FAR 27 are the deletion of sections: 27.562, 27.1195, and 27.952(b)(1).

This report demonstrates that the installation of the Quick Release Cargo Basket (945 configuration) complies with the original basis of certification.

4.0 APPLICABILITY OF AIRWORTHINESS DIRECTIVES

Airworthiness Directives applicable to the Bell 206L Series and 407 were reviewed, and none were found to affect this project.

LOADS

BELL 407 HELICOPTER LOAD FACTORS, FAR 27:

FAR 27.561(b)(3)

Ultimate Upward Emergency Landing Load Factor:

 $n_{e up} = 1.5$

Ultimate Forward Emergency Landing Load Factor:

 $n_{e \text{ fwd}} = 4.0$

Ultimate Sideward Emergency Landing Load Factor:

n_{e side} := 2.0

Ultimate Downward Emergency Landing Load Factor: $n_{e\ down} := 4.0$

FAR 27.625

Fitting Factor (does not apply to articles being tested): $n_{ff} = 1.15$

FAR 27.303

Safety Factor:

 $n_{sf} := 1.5$

FAR 27.337(a)

Limit Positive Maneuvering LoadFactor:

 $n_{man} := 3.5$

 $n \text{ man ult} = n \text{ man} \cdot n \text{ sf}$

Ultimate Positive Maneuvering LoadFactor:

 $n_{man ult} = 5.25$

Limit Negative Maneuvering LoadFactor:

 $n_{man n} := -1.0$

 $n_{man_neg_u} = n_{man_n} \cdot n_{sf}$ Ultimate Negative Maneuvering LoadFactor:

 $n_{\text{man neg u}} = -1.5$

CRITICAL ULTIMATE LOAD FACTORS:

Downward:

Ultimate Positive Maneuvering LoadFactor:

 $n_{man ult} = 5.25$

Forward:

Ultimate Forward Emergency Landing Load Factor:

 $n_{e \text{ fwd}} = 4.00$

Sideward:

Ultimate Sideward Emergency Landing Load Factor:

 $n_{e \text{ side}} = 2.00$

Upward:

Ultimate Upward Emergency Landing Load Factor:

 $n_{eup} = 1.50$

The basket is mounted below and to one side of the cabin. Forward deflection or failure in the emergency landing condition does not endanger the occupants. Likewise, Sideward and Upward deflection or failure of the basket in the emergency landing condition do not endanger the occupants.

Sideward and Upward Load Factors are used in the tests to ensure that the lid of the basket does not open in flight.

5.1 Inertia Loads

The positive maneuvering load is the only critical condition.

 $W_{basket} := 55 \cdot lbf$

Weight of basket (including options, basic basket is less)

 $W_{cargo} := 275 lbf$

Weight of cargo (max)

$$P_{man lim} := (W_{basket} + W_{cargo}) \cdot n_{man lim}$$

$$P_{man\ lim} = 1155lbf$$

Limit maneuvering load due to cargo and basket

$$P_{man_ult} := P_{man_lim} \cdot n_{sf}$$

$$P_{man\ ult} = 1733lbf$$

Ultimate maneuvering load due to cargo and basket

$$W_{cargo} := 300 \, lbf$$

Weight of cargo (max)

$$P_{\text{man_lim}} := (W_{\text{basket}} + W_{\text{cargo}}) \cdot n_{\text{man_lim}}$$

$$P_{\text{man_lim}} = 12431bf$$

Limit maneuvering load due to cargo and basket

$$P_{man ult} := P_{man lim} \cdot n_{sf}$$

$$P_{man\ ult} = 1864lbf$$

Ultimate maneuvering load due to cargo and basket

5.2 Drag Load

$$l_{basket} := 75.75 in$$

Length of basket.

 $w_{basket} := 25.5 in$

Width of basket.

 $h_{basket} := 18.25 in$

Height of basket.

$$A_f := 450 \text{ in}^2$$

Frontal Area of basket.

$$A_p := l_{basket} \cdot w_{basket}$$

$$A_p = 1932in^2$$

Planar Area of basket.

$$\frac{l_{\text{basket}}}{w} = 3.0$$

Fineness ratio of basket

 $C_{Do} := 1.1$

Drag Coefficient of Basket, (overestimated) (Ref. Hoerner, Fluid Dynamic Drag, Chapter 3

Figure 22).

$$\rho := 0.002378 \frac{\text{slug}}{\text{ft}^3}$$

Density of air at Sea Level.

$$V_{ne} := 140 \, \text{knots}$$

Never-Exceed-Speed of Bell 407. (Ref. Bell 407 Flight Manual.)

$$V_d := \frac{V_{ne}}{0.9}$$

Design Dive Speed of Bell 407

$$V_d = 156$$
knots

$$P_{drag_lim} := \frac{\rho}{2} \cdot V_d^2 \cdot A_f C_{Do}$$

$$P_{drag\ lim} = 282lbf$$

Limit Drag load on basket.

$$P_{drag_ult} := P_{drag_lim} \cdot n_{sf}$$

$$P_{drag\ ult} = 423lbf$$

Ultimate Drag load on basket.

6.0 STRUCTURAL COMPLIANCE

Structural compliance is demonstrated by test. The entire cargo basket configuration is tested. A jig simulating the helicopter attachments was fabricated. A pair of quick release beams was fabricated in accordance with drawing 69830 and 69831. The beams were mounted on the jig, and a basket body fabricated in accordance with drawing 94511 was installed on the beams.

The maneuvering load is applied by stacking bags of lead shot (25 lbs each) evenly over the bottom of the basket. The drag load is applied by pulling on a piece of plywood spanning the front face of the basket with a come-along attached to a load cell.

6.1 Limit Load - 275 lbs Cargo

The lead shot required to apply the downward maneuvering load can be reduced by the weight of the basket body since it applies 1g down. The basket body weighs 32 lbs.

$$P_{man lim} = 1155lbf$$

Limit maneuvering load due to cargo and basket

$$P_{man_lim_test} := P_{man_lim} - 32 \cdot lbf$$

$$P_{man_lim_test} = 1123lbf$$

Limit load for test

The basket was loaded with 45 bags of lead shot (1125 lbs total), and pulled 290 lbs.

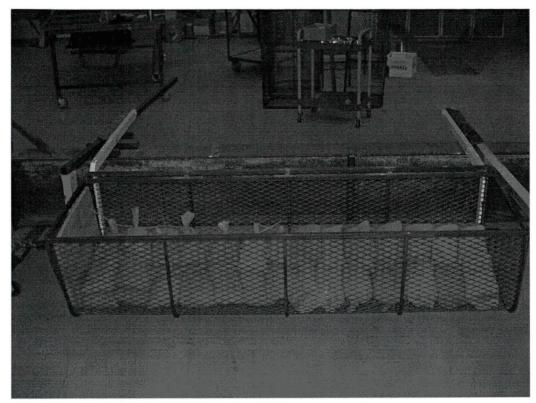


Figure 6.1.1 – Limit Maneuvering Load – 275 lbs Cargo

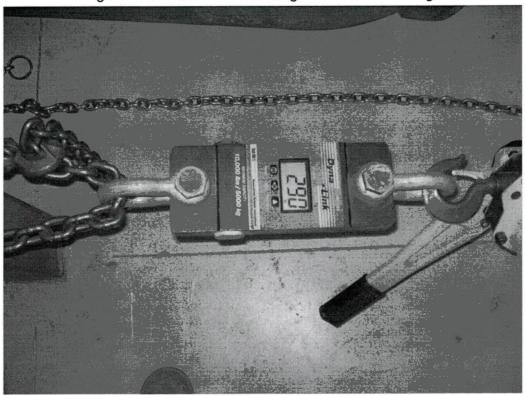


Figure 6.1.2 - Limit Drag Load



Figure 6.1.3 – Limit Maneuvering and Drag Load, 275 lbs Cargo The loads were applied for more than 3 seconds. The loads were removed and the basket and beams checked for permanent deformation. There was no deformation found.

6.2 Limit Load – 300 lbs Cargo

The lead shot required to apply the downward maneuvering load can be reduced by the weight of the basket body since it applies 1g down. The basket body weighs 32 lbs.

$$P_{man\ lim} = 1243lbf$$

Limit maneuvering load due to cargo and basket

$$P_{man lim test} := P_{man lim} - 32 \cdot lbf$$

$$P_{man\ lim\ test} = 1211lbf$$

Limit load for test

The basket was loaded with 49 bags of lead shot (1225 lbs), and pulled 310 lbs.

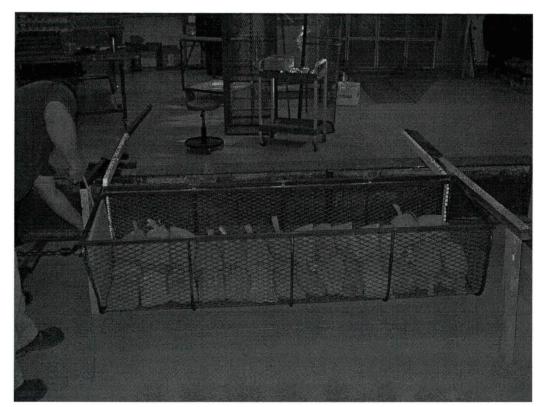


Figure 6.2.1 – Limit Maneuvering Load, 300 lbs Cargo



Figure 6.2.2 – Limit Maneuvering and Drag Load, 300 lbs Cargo



Figure 6.2.3 - Limit Drag Load

The loads were applied for more than 3 seconds. The loads were removed and the basket and beams checked for permanent deformation. There was none found.

6.3 Ultimate Load – 275 lbs Cargo

The lead shot required to apply the downward maneuvering load can be reduced by the weight of the basket body since it applies 1g down. The basket body weighs 32 lbs.

$$P_{man\ ult} = 1733lbf$$

Ultimate maneuvering load due to cargo and basket

$$P_{man ult test} := P_{man ult} - 32 \cdot lbf$$

$$P_{man\ ult\ test} = 1700lbf$$

Ultimate load for test

The basket was loaded with 68 bags of lead shot (1700 lbs), and pulled 440 lbs.

The basket and beams sustained the ultimate maneuvering and drag loads for more than 3 seconds without failure. Testing continued to ultimate load with 300 lbs cargo.

6.4 Ultimate Load – 300 lbs Cargo

The lead shot required to apply the downward maneuvering load can be reduced by the weight of the basket body since it applies 1g down. The basket body weighs 32 lbs.

 $P_{man_ult} = 1864lbf$

Ultimate maneuvering load due to cargo and basket

 $P_{man_ult_test} \coloneqq P_{man_ult} - 32 \cdot lbf$

 $P_{man_ult_test} = 1832lbf$

Ultimate load for test

The total load required is 74 bags of lead shot (1850 lbs). Loading continued from the previous condition (68 bags, 440 lbs drag).

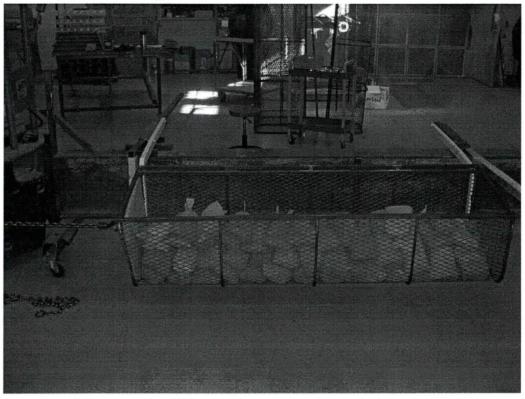


Figure 6.4.1 – Ultimate Maneuvering Load, 300 lbs Cargo

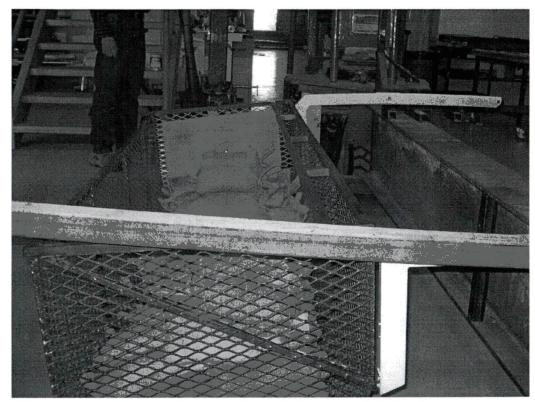


Figure 6.4.2 - Ultimate Maneuvering Load, 300 lbs Cargo

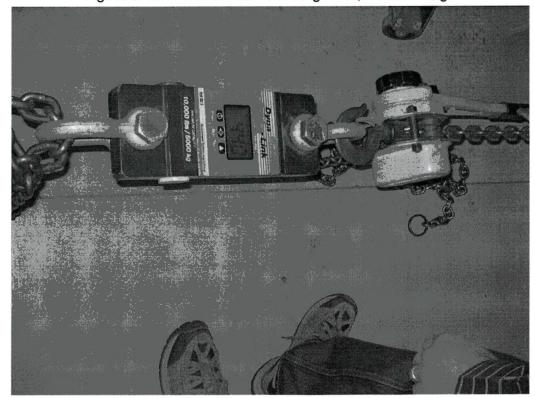


Figure 6.4.3 - Ultimate Drag Load

The basket and beams sustained the ultimate maneuvering and drag loads for more than 3 seconds without failure. The basket and beams were inspected after removal of the loads. The

AERO Design Ltd. ER945.01

basket showed no signs of permanent deformation. Both beams were slightly deformed, the aft beam was worst, bent down about 1/8" at the outboard end.

The quick release cargo basket (945 configuration) and beams are acceptable for a cargo load of 300 lbs.

6.5 Forward Emergency Landing Condition

The basket is located below the cabin. Forward deflection of the basket does not endanger the occupants in a crash.

6.6 Sideward Emergency Landing Condition

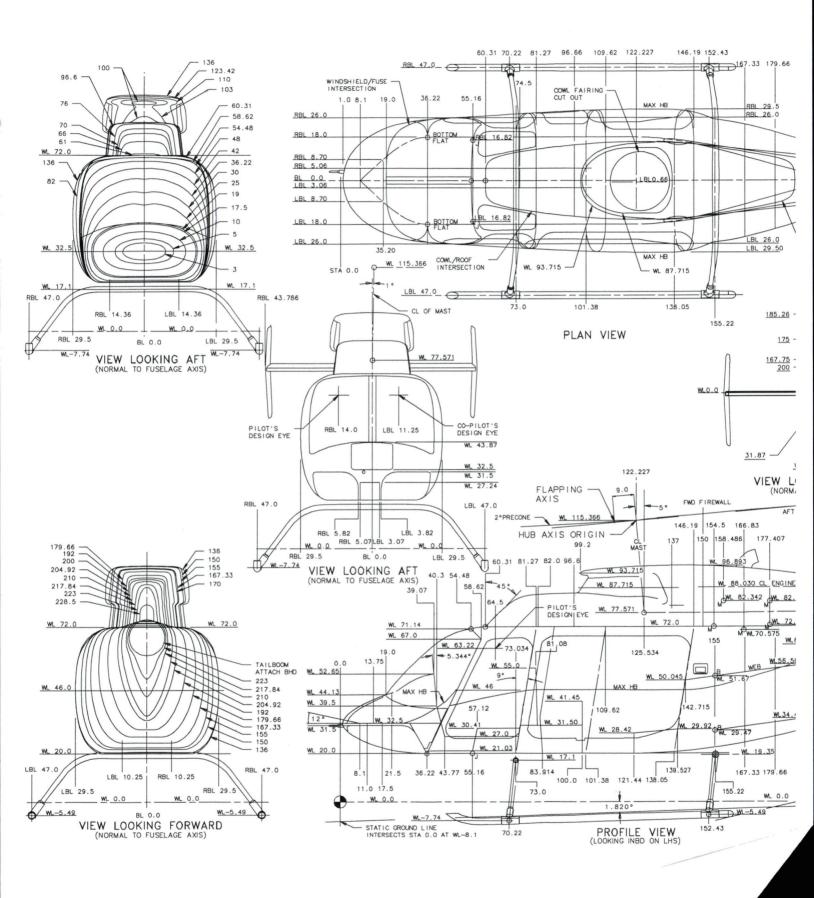
Sideward deflection of the basket does not endanger the occupants. The basket lid must remain closed in the sideward loading condition. The handle has been demonstrated to remain closed under 2g sideward load, reference Engineering Report ER842.01.

6.7 Upward Emergency Landing Condition

Upward deflection of the basket does not endanger the occupants. The basket lid must remain closed in the upward loading condition. The handle system has been demonstrated to remain closed under 450 lbs upward load (1.5g x 300 lbs), reference Engineering Report ER842.01.

7.0 FAR 27.1401 – ANTI-COLLISION LIGHT

Light located at FS 396, WL 130 on vertical fin. Cargo basket installation has no significant effect on visibility of anticollision light.



206L XL-Std-regular lid 47.8 16
31.6 Wood
body only walkway lid 53.2 16.

XL-long regular lid 63.0

41.6 walkway lid 69.2

body only

AS350 XL-long regular lid 64.8

44.0 walkway lid 72.2

body only

RICHARD WANTS TO CHECK LATERAL C.G.

$$\frac{0.45}{2.0} = \frac{x}{1.4}$$

$$0.275$$

$$0.5$$

irect |

19. The pressure drag caused by laminar separation (at subcritical Reynolds number) can be approximated by a component proportional to the thickness ratio (d/l). Applying the functions as given in the "streamline" chapter, the total drag coefficient in this condition can be approximated by

$$C_{D_{\bullet}} \ = 0.44 \ (d/\text{L}) + 4 \ C_{\mbox{f}}(\text{L/d}) + 4 \ C_{\mbox{c}}(d/\text{L})^{\mbox{L/2}} \eqno(25)$$

Figure 19 also presents the minimum drag coefficients obtained shortly above the critical transition (see for illustration figures 10 and 11). It appears that equation 31 of the "streamline" chapter can be applied to give an approximate interpolation, using a friction-drag coefficient $C_{\mathfrak{p}}=0.004$.

Half Bodies. A theoretical "half body" extends to infinity in one direction. Theory (23) predicts that such bodies, with a properly streamlined shape facing the fluid flow, do not have any drag. Positive as well as negative pressure differentials press upon the frontal area so that the resultant force is zero. To understand this result, the reader is invited to investigate the pressure distribution of the sphere - which gives a related result. Integrating the theoretical pressure distribution in figure 9 across the frontal area, it is found that the suction forces predominate so that the forebody drag coefficient is negative ($C_{D_{\bullet}} = -0.125$). The phenomenon of zero or negative forebody drag is also found to some extent in real and viscous fluid flow. Figure 20 gives pressure drag coefficients evaluated from tests (25) on a series of rotationally symmetric body "noses". The first three shapes have a forebody drag

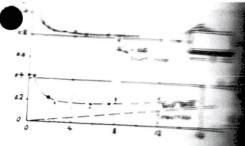


Figure 21. Drag coefficients of estimates and flow, with blunt shape (in the arounded or streamlined head form function of the fineness ratio 1/d.

the drag coefficients of a number ies in axial flow. Figure 22 shows sults in two-dimensional flow. The shapes essentially consists of that of the base drag originating at the bluzero length ratio, the coefficients of are plotted, respectively. Two branches each graph, one for blunt head form or respectively; and the other one representations of the coefficients of the coefficients of are plotted, respectively.

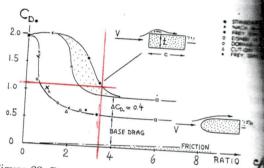
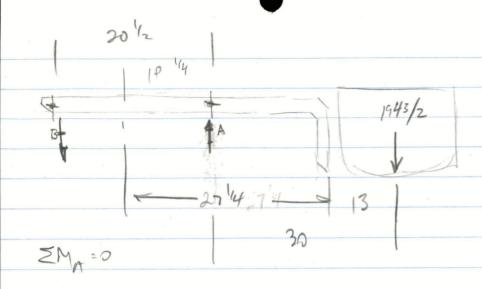


Figure 22. Drag coefficient of "rectangular" sections between walls) with blunt leading edge (upper part with rounded shape (lower part), against length rates.



20.5 x RB = 1943/2 x 30

971.5

OK

1421.7 = RB OLT

RA= 1421.7 + 971.5 = 2393.2 16 ut.

Allowable = 3413 16.

×

- 1

26 SEPT, 2006

PHONE CONVERSATION BETWEEN JACK STAAL

JACK WQUIRED WITH FLIGHT TEST IN OTTANA

BEZL 2066 X CN HIGH SKID GEAR X AN OBJECT EXTENDING 18 INCHES BELOW THE HELICOPTER BELLY HAS ADEQUATE CLEARANCE FOR THE CONDITION OF & RESERVE ENERGY ABSORPTION DROP TEST

BELL 407 (ON HIGH SKIDS) OBJECT MAY EXTEND 15.4 INCHES BELOW BELLY FOR SAME CONDITION.



Transport Transports Canada Canada

APPLICATION FOR A FLIGHT PERMIT

DEMANDE DE PERMIS DE VOL

INSTRUCTIONS

Print or type all entries. Reference Canadian Aviation Regulations Standard 507 for the use and disposition of the form.

Dactylographier ou écrire en lettres moulées. Consulte Règlement de l'aviation canadien norme 507 du Manuel de navigabilité qui précise la façon de remplir et d'acheminer le présent formulaire.

A ALBORATT IDENTIFICATION IDENTIFICATION DE L'AÉDONES	a delicitime to precent formulant		
A. AIRCRAFT IDENTIFICATION - IDENTIFICATION DE L'AÉRONEF 1. Owner - Propriétaire Blackomb Helicopters Ltd.	3. Aircraft Manufacturer - Constructe Bell Helicopter (Text		4a. Model - Modèle 407
2. Address - Adresse PO Box 1241	4b. Maximum Permissible Take-Off Weig Masse maximale admissible au déco	llage	lb
Whistler, BC VON 1B0	5. Serial Number - Numéro de série	6. Nationality a	nd Registration Marks nationalité et d'immatriculation
	53851 / 53031	C-FFCH /	
B. PURPOSE OF FLIGHT PERMIT (Check applicable boxes) - OBJEC	TIF DU PERMIS DE VOL (Cocher la	a ou les case(s)	voulue(s))
 Ferry flights to a base for repairs or maintenance Un vol de convoyage vers une base en vue de réparation ou de Delivery, demonstration, market survey, or crew training flights Un vol de livraison, de démonstration, d'étude de marché ou d'e Jerry flights for the purpose of showing compliance with airworthines Un vol de démonstration de conformité aux normes de navigable Other purpose (Specify) Autre fin (Préciser) 	entraînement d'équipage s standards		
	ESCRIPTION DU VOL ET LIMITATI		
talian and market a location. They have not instance by A. was the full of A. Hills and the second	Description du ou des vol(s) Joind	SHOW THE PRINCIPLE AND ADDRESS OF	besoin
1. From - Aérodrome de départ Vancouver International Airport	2. To - Aérodrome de destinati Vancouver Internat		ort
3. Via - Escales	4. Effective date (yyyy - mm - c		mination date (aaaa - mm - dd)
None	Date effective (aaaa - mm - 2011-10-28		e limite (aaaa - mm - jj) 2011-12-30
6. Aircraft does not meet the applicable airworthiness requirements as fol	lows:		
Raisons pour lesquelles l'aéronef ne satisfait pas aux exigences de na -Modified with Quick Release Cargo Basket i -Flight testing in accordance with Flight T-Flight to Vd (1.1 x Vne) required.	n accordance with DCL9		
7. The following maintenance conditions are considered necessary for sa Les conditions d'entretien suivantes sont nécessaires pour la conduite			
Aircraft certified as safe and fit for flig logbook prior to flight.	ht by a qualified AME	in the air	craft journey
8. The following operating conditions are considered necessary for safe of Les conditions d'exploitation suivantes sont nécessaires pour la conditions d'exploitation suivantes sont nécessaires pour la condition de la condi			
-DAY-VFR conditions	-draft flight manual	. supplemen	t FMS701.90 to be
-No flight over built up areas -Essential crew only	carried on board		*
-Flight to Vd is permitted			
D. SIGNATURES	10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
I hereby certify that the aircraft described above is in a condition for safe Je, soussigné, certifie que l'aéronef décrit ci-dessus est en bon état de ve			
Signature, AME Licence No., ACA No. or RCA No. Signature, N° de licence de TEA, N° d'autorisation ou N° d'autorisat and - et		ate (yyyy - mm - c ate (aaaa - mm -	
Signature of the Registered Owner or Authorized Represent	_	ate (yyyy - mm - c ate (aaaa - mm -	



Current Information, directly from the O	Official Canadian Civil Aircraft Register database.
Aircraft Information	
Mark: C-FFCH	
Common Name: Bell	Model Name: 407
Serial No: 53851	MURITAIN. 407
Basis for Eligibility for Registration: Certificate - H92	CAR Standard 507.02, 507.03 - Type
Category: Helicopter	Max take-off weight: 2267.96 kgs
Engine: 1, Turbo Shaft	
24-bit address: 11000000000011010	01110000
Regional Office: Vancouver	Year Imported: 2008
Base of Operations: CANADA, Brit	tish Columbia, Vancouver
Manufacturer Information	
Manufacturer: Bell Helicopter TEXTI	RON Canada Ltd.
Country of manufacture: CANADA	Year of Manufacture: 2008
Registration Information	
Type of Registration: Commercial	
Owner Registered Since: 2009-01-2	27
Latest Certificate of Registration Iss	ued: 2009-01-27
Last Registered Owner Information	
Name: Blackcomb Helicopters Limited Helicopters Ltd	l Partnership, by its general partner, Blackcomb
Trade Name Used Blackcomb Helico	ppters
Address: PO Box 1241	
City: Whistler	Province/State: British Columbia
Postal Code: V0N 1B0	Country: CANADA
Region: Pacific	
Mail Recipient: Yes	



Current Information, directly from the O	Official Canadian Civil Aircraft Register database.
Aircraft Information	
Mark: C-GFCC	
Common Name: Bell	Model Name: 407
Serial No: 53031	
Basis for Eligibility for Registration: Certificate - H92	CAR Standard 507.02, 507.03 - Type
Category: Helicopter	Max take-off weight: 2268 kgs
Engine: 1, Turbo Shaft	
24-bit address: 11000000010100100	00010011
Regional Office: Vancouver	
Base of Operations: CANADA, Brit	tish Columbia, Whistler
Manufacturer Information	
Manufacturer: Bell Helicopter Division	n Textron Canada Ltd.
Country of manufacture: CANADA	Year of Manufacture: 1996
Registration Information	
Type of Registration: Commercial	
Owner Registered Since: 2009-03-1	1
Latest Certificate of Registration Iss	ued: 2009-03-11
Last Registered Owner Information	
Name: Blackcomb Helicopters Limited Helicopters Ltd	l Partnership, by its general partner, Blackcomb
Trade Name Used Blackcomb Helico	pters
Address: PO Box 1241	
City: Whistler	Province/State: British Columbia
Postal Code: V0N 1B0	Country: CANADA
Region: Pacific	
Mail Recipient: Yes	

Quick Release Cargo Basket - XL Standard

$$W_{basket} := 55 \cdot lbf$$

Weight of basket (including options, basic basket is less)

$$W_{cargo} := 275 \cdot lbf$$

1 350

Weight of cargo (max)

$P_{\text{man_lim}} := (W_{\text{basket}} + W_{\text{cargo}}) \cdot n_{\text{man_lim}}$

$$P_{man_lim} = 1155 \, lbf$$

Limit maneuvering load due to cargo and basket

$$P_{man_ult} := P_{man_lim} \cdot n_{sf}$$

$$P_{\text{man ult}} = 1733 \, \text{lbf}$$

Ultimate maneuvering load due to cargo and basket

$$P_{man_lim_test} := P_{man_lim} - 32 \cdot lbf$$

$$P_{man_lim_test} = 1123 \, lbf$$

Limit load for test 45 bag 5

$$P_{man_ult_test} := P_{man_ult} - 32 \cdot lbf$$

$$P_{man_ult_test} = 1700\,lbf$$

Ultimate load for test 68 bags /

Weight of cargo (max)

$$P_{\text{man_lim}} := \left(W_{\text{basket}} + W_{\text{cargo}}\right) \cdot n_{\text{man_lim}}$$

$$P_{man_lim} = 1243 \, lbf$$

Limit maneuvering load due to cargo and basket

$$\underset{man_ult}{P_{man_lim}} \cdot n_{sf}$$

$$P_{man_ult} = 1864 \, lbf$$

Ultimate maneuvering load due to cargo and basket

$$P_{man_lim_test} = 1211 \, lbf$$

Limit load for test

$$\underset{\text{Aman_ault_test}}{P_{man_ault}} = P_{man_ault} - 32 \cdot lbf$$

$$P_{man_ult_test} = 1832 lbf$$

Ultimate load for test

Quick Release Cargo Basket - XL Long

 $W_{basket} := 70 \cdot lbf$

Weight of basket (including options, basic basket is less)

 $W_{cargo} := 275 \cdot lbf$

Weight of cargo (max)

$$P_{man lim} := (W_{basket} + W_{cargo}) \cdot n_{man lim}$$

$$P_{man lim} = 1208 lbf$$

Limit maneuvering load due to cargo and basket

$$P_{man_ult} := P_{man_lim} \cdot n_{sf}$$

$$P_{man\ ult} = 1811 \, lbf$$

Ultimate maneuvering load due to cargo and basket

$$P_{man lim test} := P_{man lim} - 42 \cdot lbf$$

$$P_{man\ lim\ test} = 1166 \, lbf$$

Limit load for test

$$P_{man_ult_test} := P_{man_ult} - 42 \cdot lbf$$

$$P_{man_ult_test} = 1769 \, lbf$$

Ultimate load for test

Weight of cargo (max)

$$P_{\text{man_lim}} := (W_{\text{basket}} + W_{\text{cargo}}) \cdot n_{\text{man_lim}}$$

$$P_{\text{man lim}} = 1295 \, \text{lbf}$$

Limit maneuvering load due to cargo and basket

$$P_{\text{man ult}} = 1943 \, \text{lbf}$$

Ultimate maneuvering load due to cargo and basket

$$P_{\text{man lim test}} = 1253 \, \text{lbf}$$

Limit load for test

$$P_{man_ult_test} = 1901 \, lbf$$

Ultimate load for test

DRAG LOAD ON BASKET

 $l_{basket} := 75.75 \cdot in$

Length of basket.

 $w_{basket} := 25.5 \cdot in$

Width of basket.

 $h_{basket} := 18.25 \cdot in$

Height of basket.

$$A_f := 450 \cdot in^2$$

Frontal Area of basket.

 $A_p := l_{basket} \cdot w_{basket}$

$$A_p = 1932 \, \text{in}^2$$

Planar Area of basket.

$$\frac{l_{basket}}{w_{basket}} = 3.0$$

Fineness ratio of basket

 $C_{Do} := 1.1$

Drag Coefficient of Basket, (overestimated) (Ref. Hoerner, Fluid Dynamic Drag, Figure 22).

$$\rho := 0.002378 \cdot \frac{\text{slug}}{\text{ft}^3}$$

Density of air at Sea Level.

 $V_{ne} := 140 \cdot knots$

Never-Exceed-Speed of Bell 407. (Ref. Bell 407 Flight Manual.)

$$V_d := \frac{V_{ne}}{0.9}$$

 $V_d = 156 \text{ knots}$

Design Dive Speed of Bell 407

$$P_{drag_lim} := \frac{\rho}{2} \cdot V_d^2 \cdot A_f C_{Do}$$

 $P_{drag_lim} = 282 lbf$

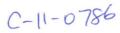
Limit Drag load on basket.

$$P_{drag\ ult} := P_{drag\ lim} \cdot n_{sf}$$

 $P_{drag_ult} = 423 lbf$

Ultimate Drag load on basket.

	Sta 0 250 lin	183/8 183/8	L AFT (87/16 18 187/16	BASKET 28/2 26/2	1165/2	175/8 183/16	BASKET 0 24 5/8 28 3/4 V	300 aft.
BEAMS	300 lim	18368 175/8	177/8 187/16 173/8 173/8	237/87	183/6 173/4 1711/6	17 1/6 18 3/8 17 3/8 18 18 18 18 18 18 18 18 18 18 18 18 18	24 3/e 28 3/s / 22 1/2 22 1/y	250 aft 250 aft 100 failun
BASKET	Std 300 lim 0 300 ult		18 18 18 17 5/8	18 187/11 173/s		fail ve		





Transports Canada

DESIGN CHANGE APPROVAL APPLICATION

DEMANDE D'APPROBATION D'UNE MODIFICATION DE LA CONCEPTION

Legal name and address of applican Nom et adresse légal du demandeur			and address of prospective holder sse légal du titulaire éventuel		(if different than applicant)	ame and address for billing purposes f different than applicant) om et adresse aux fins de facturation			
AERO Design Ltd. 2013 39th Ave NE Calgary, AB T2E 6R7		same			Nom et adresse aux fins d (si différent du demandeur				
Identification of aeronautical product	/ Identification du produ	l uit aéronautiq	ue						
Make / Marque	Model / Modèle	in acronadiq	Registration / Immatriculation	Serial N	lo. / N° du série	Part No. / N°	de la pièce		
Bell	206L Series,	407		All	10.711 da 55116		шо на риссо		
Request for (check appropriate box)					Type Design Examination by	Foreign Author	ority		
STC CTS STC (single serial number) CTS (numéro de série simp STC (multiple serial number) CTS (numéros de série mul Type Certificate Revision Revision No. Révision No. SHOO Restricted Category Type Catégorie restreinte Type Title and brief description of modifica Titre et brève description de la modifica Référez-vous à RAC 521.155(b)(i) p	le) rs) tiples) e 1-48 e of Operation e d'opération ation, repair or replacem fication, de la réparation our des détails. r configurati ow mount quic	Repair Appro Repair ACR - Part D Appro Current Iss Édition act ent part, incluou de la pièce ou de la pièce Ons . N k relea	r Design Approval (RDA) bation de la conception de réparation or Design Approval - Process Repair Processus de réparation sesign Approval (PDA) bation de la conception de pièce (ACP sue 8 uding effects of changes (use additionate de rechange, y compris les effets de	(ACR)	Application to a forei La demande à une a Type design examina Examen de la définit Identify Identifier if necessary). Refer to CAR gements (utiliser des feuilles s	gn authority is gn authority is iutorité étrange ation of foreigr ion de type me 521.155(b)(i) f supplémentair	requested requested requested re est dem n change odification é	andée. trangère	
TC No. / N° de CT H-92		Issue No. /	N° de l'édition		Identify State of Design	/ Identifier I'éta	it de concep	otion	
The applicant is responsible for the o	control of product manuf	facture / Le de	emandeur est responsable du contôle	de la fal	prication du produit				
Yes No Non	If no, identify who is Si non, identifier qui		ble						
								icant	
			entation to be submitted mentation à soumettre				Subr	nitted umis	
							Yes	No	
Proposed certification basis Proposition de base de certification							Oui	Non	
Certification plan in accordance with Plan de certification selon RAC 521.							1		
Applicant's remarks / Remarques du									
Applicant's remarks / Nemarques du	demanded								
I hereby certify that the information of charges as prescribed in Part 1, Sul	opart 4 of the CARs (CA	AR 104-Charg		ances pr			RAC (sous-	partie 104	

AERO Design Ltd.

Project Summary

PS945, Revision 0, 19 September 2011

Title: Quick Release Cargo Basket

Approval: STC

Manufacture: Mfd by Aero Design (amend Approved Producuct List)

Customer:

Type and Model: Bell 206L Series, 407

Definition Of Change:

Description:

A larger basket has been requested by current operators of the low mounted quick release cargo basket. Measurements from the original quick release basket configuration shows there is sufficient room to raise the top of the basket by 1.25". The width of the basket is also increased by 3.25" to maximize usage of available sheets of mesh. The location of the bottom of the basket is not changed from the original configuration.

Two basket configurations are provided:

- 1. 75.25" long (94510-01)
- 2. 96.5" long (94610-01)

Both configurations use the same size hoops. The short configuration is the same length as the original basket. The long configuration extends the aft end past the crosstube. A cutout is provided to allow for deflection of the crosstube.

Primary Changes to the Aeronautical Product:

Installation of external attachment provisions, installatoin of quick release mounting provisions, installation of cargo basket

Secondary Changes to the Aeronautical Product (Required as consequence of primary changes):

none

Other Relevant Modifications to the Aeronautical Product (Which impact on this change):

none



Project Summary PS945, Revision 0, 19 September 2011

CHAN	IGED PRO	DDUCT RULE (CPR) DECISION RECORD
NAPA No.:		
Step 1: Identify the proposed change to the aeronautical product.	The char	nges are as previously described.
(Section 4.1 of AC 500-016)		
Step 2: Is the change substantial?	☐ Yes	A new type certificate is required. CPR Decision Process is Closed.
(Section 4.2 of AC 500-016)	⊠ No	Proceed to Step 3
Step 3: Will the latest standards be used?	☐ Yes	Certification basis to use latest standards. CPR Decision Process is Closed.
(Section 4.3 of AC 500-016)	⊠ No	Proceed to Step 4.
Step 4: Is the proposed change	☐ Yes	Proceed to Decision.
significant? (Section 4.4 of AC 500-016)	⊠ No	Compliance may be shown to earlier standards. Certification basis to be defined and documented as indicated (below). CPR Decision Process is Closed .
Decision: Will the latest standards be	☐ Yes	Certification basis to use latest standards. CPR Decision Process is Closed.
used?	⊠ No	Proceed to Step 5, addressing each area separately (see below).
Identification of Affected Areas:	The area	(s) affected by the proposed change have been detailed in Compliance Program:
	CP945	
Note: A delegate may develop a propos	sal for the	Yes/No decision of Step 6, however, TCCA will make the final determination.
Area:		
Step 5: Is this area affected by the	☐ Yes	Proceed to Step 6.
proposed change?	☐ No	Compliance with the latest standards is not required. Compliance may be shown
(Section 6.1 of AC 500-016)		to earlier standards. Certification basis defined or documented as indicated below.
Step 6: Are the latest standards practical	☐ Yes	Certification basis to be established using latest standards.
and do they contribute materially to the level of safety?	⊠ No	Compliance with the latest standards is not required. Compliance may be shown
(Section 6.2 of AC 500-016)		to earlier standards. Certification Basis defined or documented as indicated in below.
☐ Continuation Sheet(s) Attached		Note: Several standards may apply to each area and the assessment may differ from standard to standard. Indicate Yes if compliance with any latest
		standard(s) will be required. Indicate No only if no later standards are to be applied.
Certification Basis		fication basis is as follows or as detailed in the listed document(s):
	FAR part	TCDS H-92: 27, dated October 2, 1964 Amendment 27-1 through 27-30; Paragraph
	27.561(b)(3) at Amdt 27-24; Section 27.563 at Amdt. 27-25; Section 27.785 at Amdt 27-24; 27.1093 at amendment 27-8; and Section 27.173 and 27.175 at amendment 27-1.
		ons to FAR 27 are the deletion of sections: 27.562, 27.1195, and 27.952(b)(1)
and the state of t		
determine, to the best of my knowledge and	belief, tha	,
substantial, pursuant to subsection		
significant, pursuant to subsection to not significant, pursuant to subsection		
not significant, pursuant to subsecti	011 5 1 1.15	(3) of 313.07(3) of the OAKS
Atad Bai		20 October 2011
E. Burgoin, P. Eng., DAR 290M		Date

AIRWORTHINESS REQUIREMENTS **COMPLIANCE PROGRAM**

Page 1 of 3

CP945

APPLICANT: AERO Design Ltd. 2013 39th Avenue NE

Calgary, Alberta, T2E 6R7

DATE: 20 September 2011

REV. No. 0

MAKE: Bell Helicopter

MODEL: 206L Series, 407

REGISTRATION: All Applicable

SERIAL No.: All Applicable

(If other than applicant)

CORRESPONDANCE TO:

NATURE OF WORK: Installation of Side-Mounted External Cargo Basket

MODEL CERTIFICATION BASIS: FAR 27, Amendment 27-30, with exceptions as noted below. (Bell 407, highest of 206L Series and 407)

MODIFICATION CERTIFICATION BASIS: FAR 27, Amendment 27-30, with exceptions as noted below.

Airworthiness Requirement		Subject for Compliance or Documentary Proof	Form of Substantiation	DOT	DAR	Comments
Paragraph	Amd		2 0 1 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1			
Subpart B –	Flight					
27.27	30	Centre of Gravity Limits	N/A			No change from Type Approval.
27.29	30	Empty Weight and Corresponding C of G	Data specified on inst'n drawing		Х	
27.51	30	Takeoff	Flight Test	Χ	1	
27.65	30	Climb: All Engines Operating	Flight Test	X	1	
27.71	30	Gliding Performance	Flight Test	X	1	
27.75	30	Landing	Flight Test	X	1	
27.141	30	Flight Characteristics – General	Flight Test	X	- 1	
27.143	30	Controllability and Maneuverability	Flight Test	X	1	
27.151	30	Flight controls	Flight Test	X	1	Flight tests to be performed on Bell 407 by
27.161	30	Trim	Flight Test	X	ĺ	Transport Canada
27.171	30	Stability – General	Flight Test	X	ĺ	
27.173	1	Longitudinal Stability	Flight Test	X	ĺ	
27.175	1	Demonstration of Longitudinal Stability	Flight Test	X	İ	
27.177	30	Static Directional Stability	Flight Test	X	ĺ	
27.241	30	Ground Resonance	Flight Test	X	İ	
27.251	30	Vibration	Flight Test	Χ	Ì	
Subpart C –	Streng	th Requirements				
27.301	30	Loads – Air Drag Loads	Analysis		X	
27.301	30	Loads – Inertia Loads	Compliance with 27.337 and 27.561		X	

AIRWORTHINESS REQUIREMENTS COMPLIANCE PROGRAM

Airworthiness Requirement	9	Subject for Compliance or Documentary Proof	Form of Substantiation	DOT	DAR	Comments
Paragraph	Amd		Tomi or outstantation	DOT	Diffic	Commence
27.303	30	Factor of Safety	Analysis		Χ	
27.305	30	Strength and Deformation	Analysis and Test iaw AC 43.13-1A		X	
7.307	30	Proof of Structure	Analysis and Test iaw AC 43.13-1A		X	
7.337(a)	30	Limit Maneuvering Load Factor - Positive	Analysis and Test iaw AC 43.13-1A		X	Critical load factor in downward direction.
7.471	30	Ground Loads - General	N/A			No change from STC approved configuration
7.473	30	Ground Loading Conditions and Assumptions	N/A			No change to assumptions used for Type Approved configuration.
27.501	30	Ground Loading Conditions – Landing Gear with Skids	N/A			Loads from the cargo basket on the landing gear fittings do not use skid tubes or cross tubes in load path.
27.547	30	Main Rotor Structure	Flight Test	X		See comments for flight test above
7.561	30	Emergency Landing Conditions	Analysis and Test iaw AC 43.13-1A	,	X	and definition to high toot above
7.561(b)3(i)	24	Emergency Landing Conditions – Up	Analysis and Test iaw AC 43.13-1A		X	
7.561(b)3(ii)	24	Emergency Landing Conditions – Fwd	N/A		,	Forward deflection or failure of basket poses no threat to occupants.
7.561(b)3(iii)	24	Emergency Landing Conditions - Side	Analysis and Test iaw AC 43.13-1A		X	no amout to occupante.
7.561(b)3(iv)		Emergency Landing Conditions – Down	Compliance with 27.337		X	27.337 Maneuvering Load is Critical.
Տubpart D − D	esigr	and Construction				
27.601	30	Design	Drawings		X	Design is conventional.
27.603	30	Materials	Drawings		X	Materials used are specified in Mil-Hdbk-5H.
7.605	30	Fabrication Methods	Drawings		X	Design is conventional.
7.609	30	Protection of Structure	Drawings		X	
7.611	30	Inspection Provisions	Drawings		X	Design is easy to inspect.
7.613	30	Material Strength Properties and Design	Values used as per Mil-Hdbk-5H		Χ	
27.625	30	Values Fitting Factor	Analysis		Х	
27.725	30	Limit Drop Test	N/A		1	No change in ground clearance from STC
27.727	30	Reserve Energy Absorption Drop Test	N/A		İ	approved configuration
27.783	30	Doors	N/A			Installation does not block doors.
7.787(a)	30	Cargo and Baggage Compartments	Compliance with 23.301 through 307		X	
27.787(b)	30	Cargo and Baggage Compartments	Design		X	Basket is a closed container.
7.787(c), (d)	30	Cargo and Baggage Compartments	N/A			Cargo is external to helicopter.

AIRWORTHINESS REQUIREMENTS COMPLIANCE PROGRAM

Airworthiness Requirement	S	Subject for Compliance or Documentary Proof	Form of Substantiation	DOT	DAR	Comments
Paragraph	Amd	t.				
27.807	30	Emergency Exits	N/A			Installation does not block doors.
27.865	30	External Load Attaching Means	N/A			Cargo basket is classified as a cargo compartment
27.1387 27.1401	30 30	Position Light System Dihedral Angles Anticollision Light System	N/A Statement	X		No change from Type Approval. Light located at FS 396, WL 130 on vertical fin. Basket has no significant effect on visibility of anticollision light.
Subpart G –	Opera	ting Limitations and Information				
27.1505	30	Never Exceed Speed	Flight Test, Flight Manual Supplement	X		V_{NE} limits to be verified by flight test.
27.1525 27.1529	30 30	Kinds of Operation Instructions for Continuing Airworthiness	Flight Manual Supplement ICA Provided	X		Limited to VFR only.
27.1557(a)	30	Miscellaneous Markings and Placards –	Placard provided		X	
27.1557(b)	30	Baggage Compartments Miscellaneous Markings and Placards	N/A			
27.1557(b)	30	Miscellaneous Markings and Placards	N/A			
27.1557(d)	30	Miscellaneous Markings and Placards	N/A			
27.1581 27.1583(c)	30 30	Rotorcraft Flight Manual – General Operating Limitations – Weight and	Flight Manual Supplement Flight Manual Supplement	X		
27.1000(C)	50	Loading Information	r light Wandar Supplement	^		
27.1585	30	Operating Procedures	Flight Manual Supplement	X		
27.1587	30	Performance Information	Flight Manual Supplement	X		
27.1589	30	Loading Information	Flight Manual Supplement & Placard	X		Placard installed on basket lid
Airworthines	s Man	ual Requirements				
527.1581(e)		Rotorcraft Flight Manual – Units	SI and Imperial Units provided in Flight Manual Supplement	X		

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INSTALLATION INSTRUCTIONS

IIN-D407-797-1

FOR INSTALLATION OF:

D407-797-011

D407-797-012

D407-797-013

D407-797-014

D407-797-111

D407-797-101/-103

Quick Release Heli-Utility-Basket™

BELL 407 MODELS

CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION BRANCH DAO # 01-O-01

D. SHEPHERD (DE # 02)

DATE: CERT. NO .: SH11-1

ISSUE NO .: ISSUE # 2 Prepared By:

A. Stocker legnanical Designer

Checked By:

M. Petsche Design Manager

Released By:

D. Shepherd, P. Eng.

DE #02

DART AEROSPACE LTD.

IIN-D407-797-1

Page 2 of 17

REVISION RECORD

Revision	Issue Date	Description
Α	10.12.08	New Issue
В	11.07.29	Pictorial update to figures 1,3 & 4 for new beam design.

Revision: **B**

IIN-D407-797-1





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DART AEROSPACE LTD.

IIN-D407-797-1

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1.0 INTRODUCTION

The Dart D407-797-011/-012/-013/-014 Quick Release Heli-Utility-Basket™ mounts to the Bell 407 aircraft by means of the D407-797-111 Quick Release Basket Mounting Kit (see Figure 1).

The D407-797-011/-012 Baskets are rectangular in shape, 96.00" in length and are capable of carrying a distributed cargo load of 250 lbs (113 kg). The D407-797-011/-012 Baskets feature a flat heavy duty stainless steel lid designed to be a step or act as a work platform.

The D407-797-013/-014 Baskets are rectangular in shape, 96.00" in length and are capable of carrying a distributed cargo load of 265 lbs (120 kg). The D407-797-013/-014 Baskets have a flat light weight aluminum lid covered with a "cargo net" type material. These baskets are 15 lbs (6.8 kg) lighter than D407-797-011/-012 Baskets. However, the lid cannot be used as a step or act as a work platform.

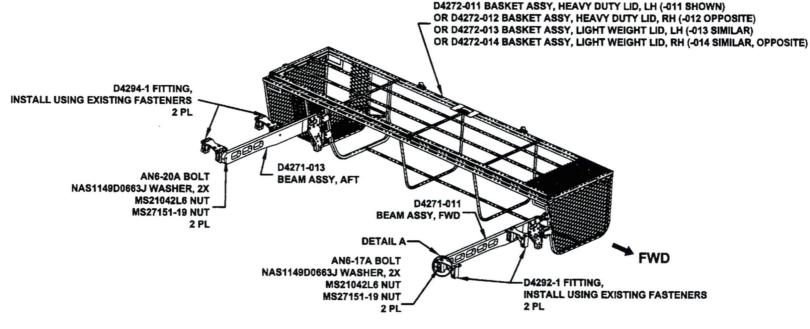
The D407-797-011/-012/-013/-014 baskets include the D407-797-111 quick release mounting provisions and can be installed only on high gear. The D407-797-011/-013 kits can be installed on the LH side of the aircraft and the D407-797-012/-014 kits can be installed on the RH side of the aircraft.

The D407-797-111 Quick Release Basket Mounting Kit consists of the D4271-011 Fwd Beam Assy, D4271-013 Aft Beam Assy, D4292-1 Fwd Fittings and D4294-1 Aft Fittings which can be installed on LH/RH side. This Kit can be procured to equip multiple aircraft for quick transfer of the D4272-011/-012/-013/-014 Basket Assy from one aircraft to another.

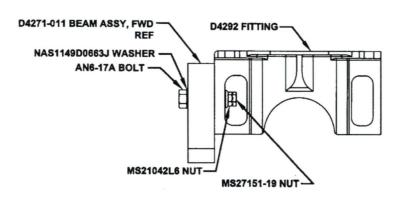
The Dart D407-797-101 Conversion Kit includes a flat light weight aluminum lid covered with a "cargo net" type material to convert a D407-797-011/-012 basket to a light weight D407-797-013/-014 basket.

The Dart D407-797-103 Conversion Kit includes a flat heavy duty stainless steel lid to convert a D407-797-013/-014 basket to a heavy duty D407-797-011/-012 basket.

The components in the Dart kits are as defined in the Tables in Sections 5.0 and 6.0 of these instructions. For convenience, only the last three digits of the part number are listed on the top row of each table. The quantity of each component, which is included in the D407-797-011 Quick Release Heli-Utility-Basket, for example, is as defined in the column labeled -011.



D407-797-011 BASKET INSTL - HEAVY DUTY LID, LH (SHOWN) D407-797-012 BASKET INSTL - HEAVY DUTY LID, RH (OPPOSITE) D407-797-013 BASKET INSTL - LIGHT WEIGHT LID, LH (SIMILAR) D407-797-014 BASKET INSTL - LIGHT WEIGHT LID. RH (SIMILAR, OPPOSITE) (FOR USE ON 407 MODELS)



DETAIL A SAFETY NUT INSTALLATION, 4 PL FWD SHOWN, AFT SIMILAR

Figure 1: BELL 407 Quick Release Heli-Utility-Basket™Installations

(Aircraft not shown for clarity)

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11.07.29

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IIN-D407-797-1

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2.0 **GENERAL NOTES**

COMPATIBILITY

Compatibility of this installation with the aircraft is the responsibility of the installer. Ensure that this installation does not conflict with a previous modification.

CONTINUING AIRWORTHINESS

This installation should be maintained in accordance with Instructions for Continued Airworthiness ICA-D407-797.

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Revision: **B**

3.0 INSTALLATION PROCEDURE

3.1 Initial Installation

- 3.1.1 To facilitate the installation of the D407-797-011/-012/-013/-014 Quick Release Heli-Utility-Basket™, remove the steps that are attached to the landing gear on the side of the aircraft that the basket is being installed.
- 3.1.2 Raise the helicopter using a hoist and remove landing gear per the Aircraft Maintenance Manual.
- 3.1.3 Remove the existing Fwd/Aft Support Fittings per the Aircraft Maintenance Manual or relevant STC. Retain the existing hardware.
- 3.1.4 Enlarge the 2 mounting holes on the D4292-1 Forward Support Fitting from Ø0.266" to Ø0.323". Deburr and touch up with Alodine 1200/1201 per MIL-C-5541.
- 3.1.5 Install the D4292-1 Forward Support Fitting (2 PL) and D4294-1 Aft Support Fitting (2 PL) using the existing hardware. Torque the bolts per Table 1.

Size	Torque			
8-32	12-15 in-lbs	1.4-1.7 N-m		
3/16"	20-25 in-lbs	2.3-2.8 N-m		
1/4"	50-70 in-lbs	5.6-7.9 N-m		
5/16"	100-140 in-lbs	11.3-15.8 N-m		
3/8"	160-190 in-lbs	18.1-21.5 N-m		
MS27151-19	29-60 in-lbs	3.2-6.7 N-m		

Table 1 - Fastener Torque

- 3.1.6 Locate the landing gear under the aircraft and carefully lower the aircraft to seat the four mounting points of the D4292-1, D4294-1 Support Fittings onto the supports of the crosstubes.
- 3.1.7 Re-install the existing Fwd Strap Assemblies (Bell Part # 206-052-105-035), Aft Support Assemblies (Bell Part # 400-052-015-101) using existing hardware. Tighten the bolts to a snug fit.
- 3.1.8 Lower the aircraft onto the ground and remove the hoisting equipment. Verify that the aircraft is set correctly onto the crosstubes. Torque bolts on Fwd Strap, Aft Support Assemblies per Table 1.
- 3.1.9 Measure the distance between Fwd/Aft Supports (Dim A) and substract the distance between attachment faces on the basket (Dim B). Install D4314-X Shims on Fwd/Aft Supports as shown in Figure 2 so that Dim A = Dim B + Shim Thickness.
- 3.1.10 Install the D4271-011 Fwd Beam Assembly using AN6-17A bolts to the D4292-1 Fwd Support Fitting (2 PL) as shown in Figure 1. Torque the bolts per Table 1. Install MS27151-19 Safety Nut as shown in Figure 1 and torque per Table 1.
- 3.1.11 Install the D4271-013 Aft Beam Assembly using AN6-20A bolts to the D4294-1 Aft Support Fitting (2 PL) as shown in Figure 1. Torque the bolts per Table 1. Install MS27151-19 Safety Nut as shown in Figure 1 and torque per Table 1.
- 3.1.12 Ensure D4271-011/-013 Beam Assemblies are flush with D4292-1, D4294-1 Support Fittings using D4314-X Shim (as applicable). It is also acceptable to make Shims of required thickness using Aluminum sheet and finish with Alodine 1200/1201 per MIL-C-5541. Maximum shim thickness to be used at both Fwd/Aft Supports is 0.188" (4.77 mm).
- 3.1.13 Install the D4272-011/-012/-013/-014 Basket Assy per Section 3.2. Confirm that the installation clears the passenger door.
- 3.1.14 Install D4307-X Placard, Max Load as applicable in accordance with Table 2 and at the location shown in Figure 5.

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Revision: **B**

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Table 2: D4307-X Placard, Max Load Effectivity

Basket P/N	Description	Placard, Max Load	
-011/-012	Heavy Duty Lid	D4307-250	
-013/-014 Light Weight Lid		D4307-265	

3.2 D4272-011/-012/-013/-014 Basket Assy Installation Sequence

Follow the installation sequence below whenever mounting any of the D4272-011/-012/-013/-014 Basket Assy on the D407-797-111 Quick Release Basket Mounting Kit installed on the aircraft. Refer to Figures 3 and 4.

- 3.2.1 Ensure D4150-041 Attachment Latch Assy is locked with MS17984-C413 Quick Release Pin in upright position.
- 3.2.2 At the forward end of the basket, ensure D4150-041 Attachment Arm Assy and D3912-041 Eyebolt Receiver Assy are facing fwd. Properly align and engage D3912-041 Eyebolt Receiver Assy onto D4149-5 Eyebolt Stud of the D4271-011 Fwd Beam Assy. Allow the basket to slide onto D4149-5 Eyebolt Stud to a complete stop. A "click" should be heard as the D3801-1 Spring Plunger locks into place. Test that it has engaged by lifting up.
- 3.2.3 Lift the aft end of the basket and properly align D4151-043 Basket Hardpoint Assy (Upper) and D4151-041 Basket Hardpoint Assy (Lower) onto the D4271-013 Aft Beam Assy. Allow the basket to engage completely and secure in place using MS17984-C413 Quick Release Pin.
- 3.2.4 At the forward end of the basket, disengage the MS17984-C413 Quick Release Pin. Flip the D4150-041 Attachment Latch Assy so that the hole aligns with those on the D4271-011 Fwd Beam Assy. Lock into place using the same MS17984-C413 Quick Release Pin (may need to lift basket to achieve hole alignment).

3.3 D4272-011/-012/-013/-014 Basket Assy Removal Sequence

Follow the sequence below whenever removing any of the D4272-011/-012/-013/-014 Basket Assy from the D407-797-111 Quick Release Basket Mounting Kit installed on the aircraft. Refer to Figures 3 and 4.

- 3.3.1 At the forward end of the basket, disengage the MS17984-C413 Quick Release Pin. Flip the D4150-041 Attachment Latch Assy upwards and align the hole with the one on the Basket Assy. Lock into place with MS17984-C413 Quick Release Pin.
- 3.3.2 At the aft end of the basket, disengage MS17984-C413 Quick Release Pin. Lift and rotate the basket slightly outboard while lowering it to the ground. Ensure that the basket base clears the Steps if any are installed. Secure MS17984-C413 Quick Release Pin back into the Stud of the D4151-043 Basket Hardpoint Assy (Upper).
- 3.3.3 At the forward end of the basket, disengage D3801-1 Spring Plunger by pulling horizontally and lift the basket. Do not lift basket using D3801-1 Spring Plunger as a handle or lever. Lower basket to the ground once it is cleared from the aircraft.

3.4 Installation of D407-797-101/-103 Conversion Kits

To replace a basket lid with a heavy duty lid or a lightweight lid using the D407-797-101/-103 Conversion Kits, use the following procedure while refering to Figures 5 and 6:

- 3.4.1 If desired, remove the D4272-011/-012/-013/-014 Basket Assy from the aircraft per Section 3.3.
- 3.4.2 Open lid for ease of removal of D3969-3 Gas Spring while fully extended.

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- 3.4.3 Remove MS24665-300 Cotter Pin and detach end of D3969-3 Gas Spring mounted to the existing lid by unfastening AN310C4 Castellated Nuts. Retain D3953-3 Gas Spring Stud, D3953-7 Gas Spring Spacer and D3953-9 Gas Spring Washer. Refer to Figures 5 and 6 as applicable.
- 3.4.4 Remove lid by removing qty (3) MS24665-151 Cotter Pins and unfastening qty (3) each AN310-4 Castellated Nuts, AN4-12 Bolts and washers.
- 3.4.5 Install D3914-041 or D3915-041 as applicable using qty (3) each AN310-4 Castellated Nuts and AN4-12 Bolts and qty (6) NAS1149F0432P Washers per Figure 6. Secure Castellated Nut with MS24665-151 Cotter Pins per MS33540 or AC43.13 Chapter 7.127.
- 3.4.6 Attach loose end of D3969-3 Gas Spring to new lid using D3953-3 Gas Spring Stud and D3953-7 Gas Spring Spacer (removed at Step 3.4.2), D3953-7 Gas Spring Washer, NAS1149C0432R Washer and AN310C4 Castellated Nuts per Figures 5 and 6 as applicable. Secure Castellated Nut with MS24665-300 Cotter Pin per MS33540 or AC43.13 Chapter 7.127.
- **Note:** The D3953-21 Gas Spring Bracket can be installed in two positions. This will allow the Lid to open more or less depending on the operator's needs.
- 3.4.7 Install D4307-X Placard, Max Load as applicable in accordance with Table 2 (see Section 3.1) and at the location shown in Figure 5.
- 3.4.8 If D4272-011/-012/-013/-014 Basket Assy was removed from aircraft, re-install per section 3.2.
- 3.4.9 Update Weight & Balance per Section 4.0 as applicable.

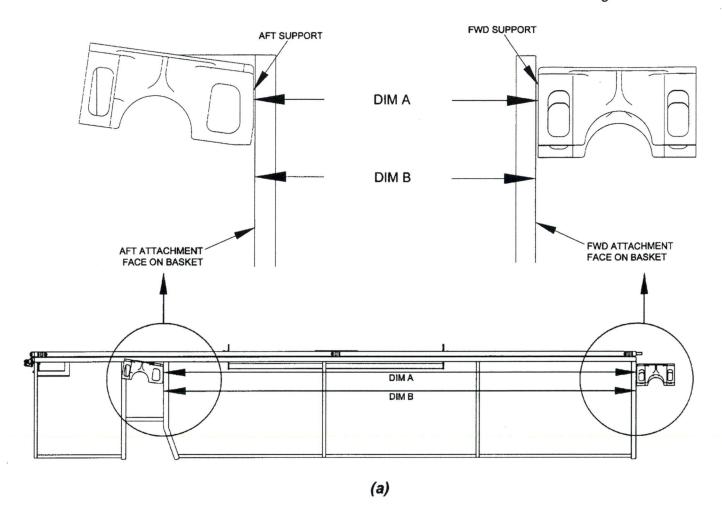
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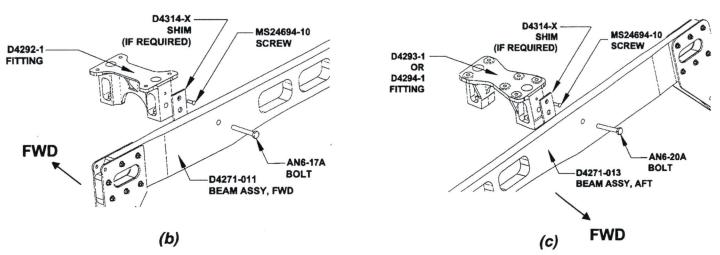


Figure 2: INSTALLATION OF D4314-X SHIM

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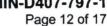
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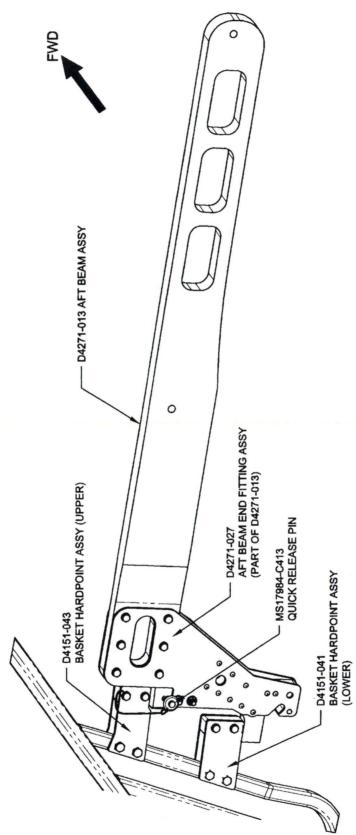
Figure 3: D407-797-011/-012/-013/-014 Basket Installation, Fwd Mount (LH Installation Shown, RH Opposite)

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Figure 4: D407-797-011/-012/-013/-014 Basket Installation, Aft Mount (LH Installation Shown, RH Opposite)

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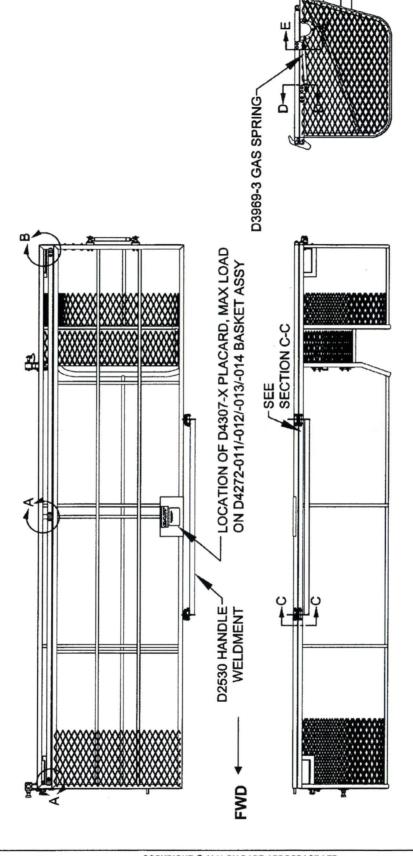
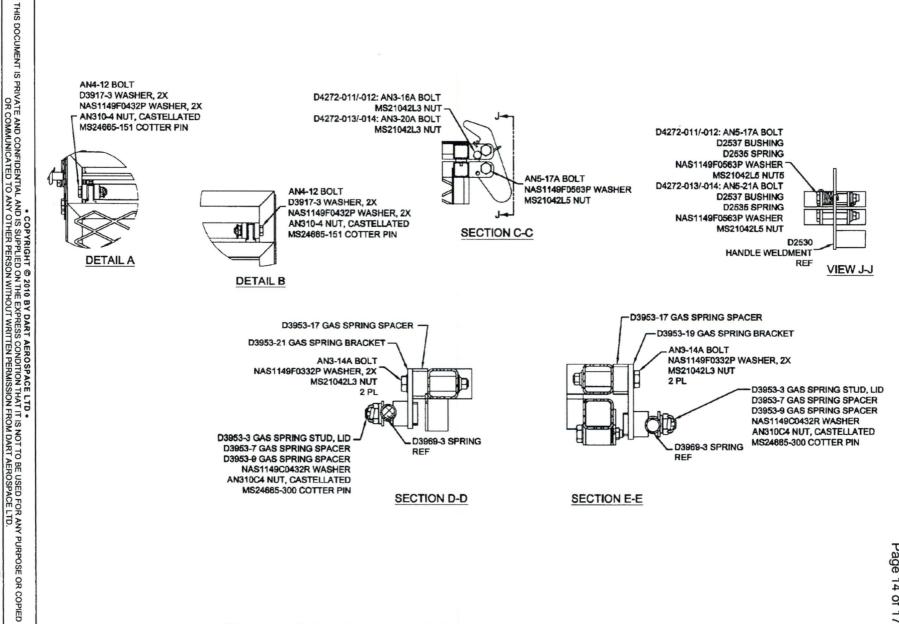


Figure 5: D4272-011/-012/-013/-014 Basket Assy

(LH Installation Shown, RH Opposite)



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Figure 6: D407-797-101/-103 Conversion Kits Installation (DETAIL VIEWS FROM FIGURE 5)

SECTION D-D

SECTION E-E

MS24665-300 COTTER PIN

4.0 WEIGHT AND BALANCE

Installation	Weight	Weight LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D407-797-011	105.0 lb	-30.1 in	-3161 in-lb	118.5 in	-12443 in-lb
(Heli-Utility Basket with Heavy	47.7 kg	-0.76 m	-36.3 m-kg	3.01 m	-143.6 m-kg
Duty Lid, LH Install)					
D407-797-012	105.0 lb	30.1 in	3161 in-lb	118.5 in	12443 in-lb
(Heli-Utility Basket with Heavy	47.7 kg	0.76 m	36.3 m-kg	3.01 m	143.6 m-kg
Duty Lid, RH Install)					
D407-797-013	90.0 lb	-30.1 in	-2709 in-lb	118.5 in	-10665 in-lb
(Heli-Utility Basket with Light	40.9 kg	-0.76 m	-31.1 m-kg	3.01 m	-123.1 m-kg
Weight Lid, LH Install)					
D407-797-014	90.0 lb	30.1 in	2709 in-lb	118.5 in	10665 in-lb
(Heli-Utility Basket with Light	40.9 kg	0.76 m	31.1 m-kg	3.01 m	123.1 m-kg
Weight Lid, RH Install)					
D407-797-111	32.2 lb	± 13.2 in	± 425 in-lb	± 111.8 in	± 3600 in-lb
(Quick Release Basket Mounting	14.6 kg	± 0.33 m	± 4.8 m-lb	± 2.83 m	± 41.3 m-kg
Kit, LH/RH Install)					



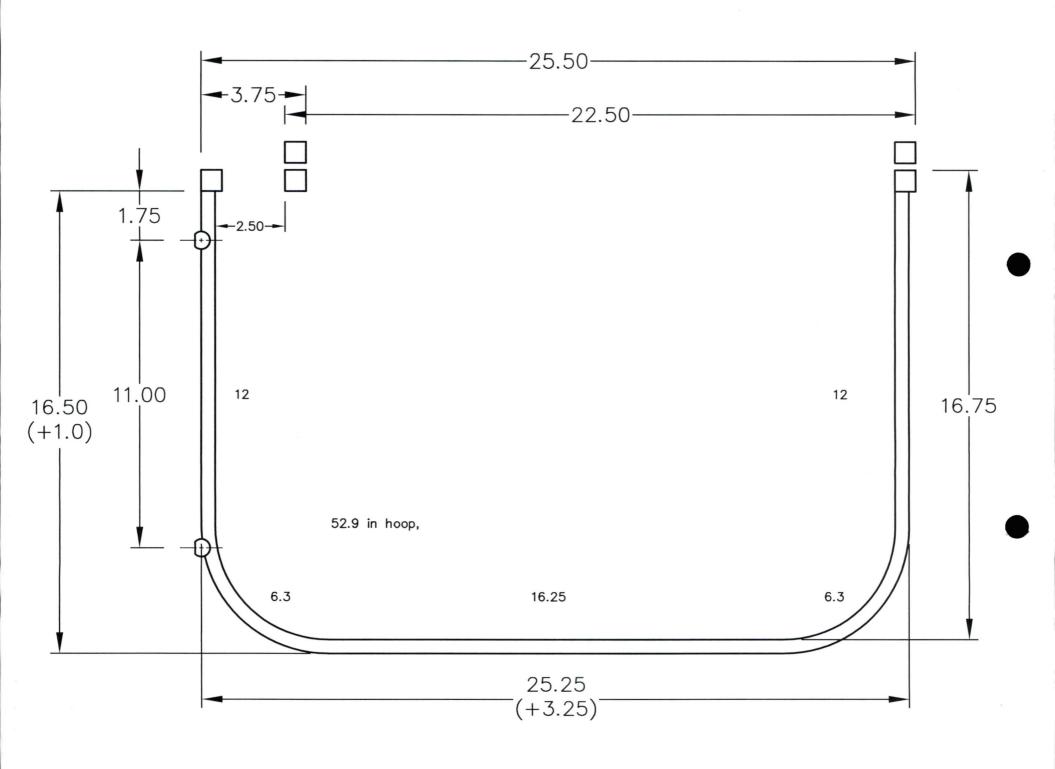
PARTS LIST 5.0

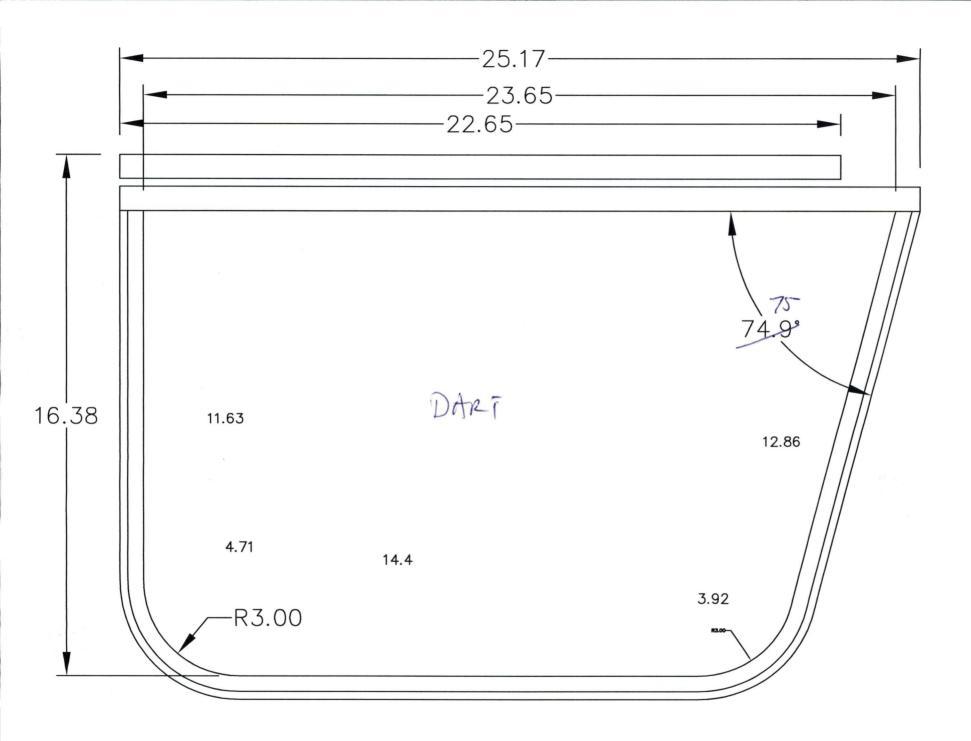
Qty -011	Qty -012	Qty -013	Qty -014	Qty -111	Part Number	Description
Х					D407-797-011	QUICK RELEASE HELI-UTILITY-BASKET
	Х				D407-797-012	QUICK RELEASE HELI-UTILITY-BASKET
		X			D407-797-013	QUICK RELEASE HELI-UTILITY-BASKET
			Х		D407-797-014	QUICK RELEASE HELI-UTILITY-BASKET
1	1	1	1	Х	D407-797-111	QUICK RELEASE BASKET MOUNTING KIT
1					D4272-011	BASKET ASSY, HEAVY DUTY LID, LH
	1				D4272-012	BASKET ASSY, HEAVY DUTY LID, RH
		1			D4272-013	BASKET ASSY, LIGHT WEIGHT LID, LH
-			1		D4272-014	BASKET ASSY, LIGHT WEIGHT LID, RH
				1	D4271-011	BEAM ASSY, FWD
				1	D4271-013	BEAM ASSY, AFT
				2	D4292-1	FITTING
				2	D4294-1	FITTING
				4	D4314-1	SHIM
				4	D4314-3	SHIM
				2	AN6-17A	BOLT
				2	AN6-20A	BOLT
				8	NAS1149D0663J	WASHER (OR AN960JD616)
				4	MS21042L6	NUT (OR MS21042-6)
				4	MS27151-19	NUT
				4	MS24694-10	SCREW

6.0 CONVERSION KITS PARTS LIST

QTY -101	QTY -103	PART NUMBER	DESCRIPTION
Х		D407-797-101	LIGHT WEIGHT LID KIT
	Х	D407-797-103	HEAVY DUTY LID KIT
1	4	DOESO	HANDLE ACCEMBLY
	1	D2530	HANDLE ASSEMBLY
2	2	D2535	SPRING
2	2	D2537	BUSHING
11		D3915-041	BASKET LID ASSEMBLY (LIGHT WEIGHT)
	1	D3914-041	BASKET LID ASSEMBLY (HEAVY DUTY)
6	6	D3917-3	WASHER
2	2	D3953-9	GAS SPRING WASHER
1		D4307-265	PLACARD, MAX LOAD
	1	D4307-250	PLACARD, MAX LOAD
	2	AN3-16A	BOLT
2		AN3-20A	BOLT
3	3	AN4-12	BOLT (DRILLED)
	2	AN5-17A	BOLT
2		AN5-21A	BOLT
3	3	AN310-4	CASTELLATED NUT
2	2	AN310C4	CASTELLATED NUT
2	2	MS21042L3	NUT (OR MS21042-3)
2	2	MS21042L5	NUT (OR MS21042-5)
3	3	MS24665-151	COTTER PIN
2	2	MS24665-300	COTTER PIN
2	2	NAS1149C0432R	WASHER
6	6	NAS1149F0432P	WASHER
2	2	NAS1149F0563P	WASHER

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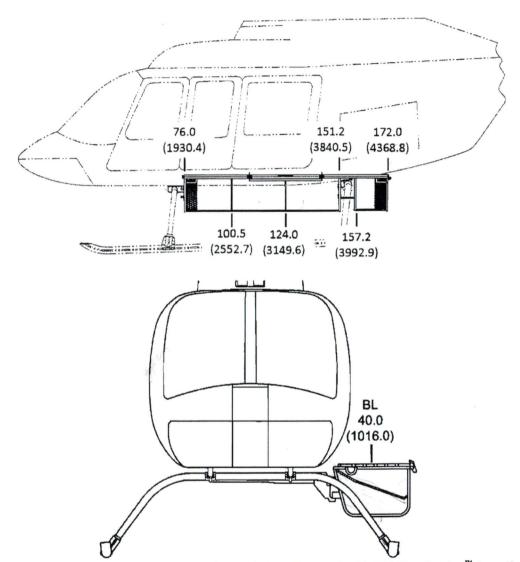




47.5 length in hoop

SECTION 5 - WEIGHT AND BALANCE

NO CHANGE FROM BASIC ROTORCRAFT FLIGHT MANUAL WEIGHT AND CENTER OF GRAVITY LIMITATIONS



Station Locations for Weight and Balance Calculations with Heli-Utility-Basket™ Installed

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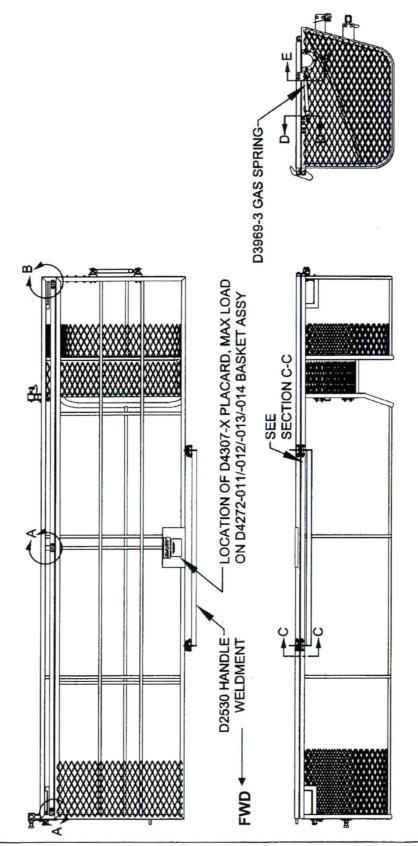
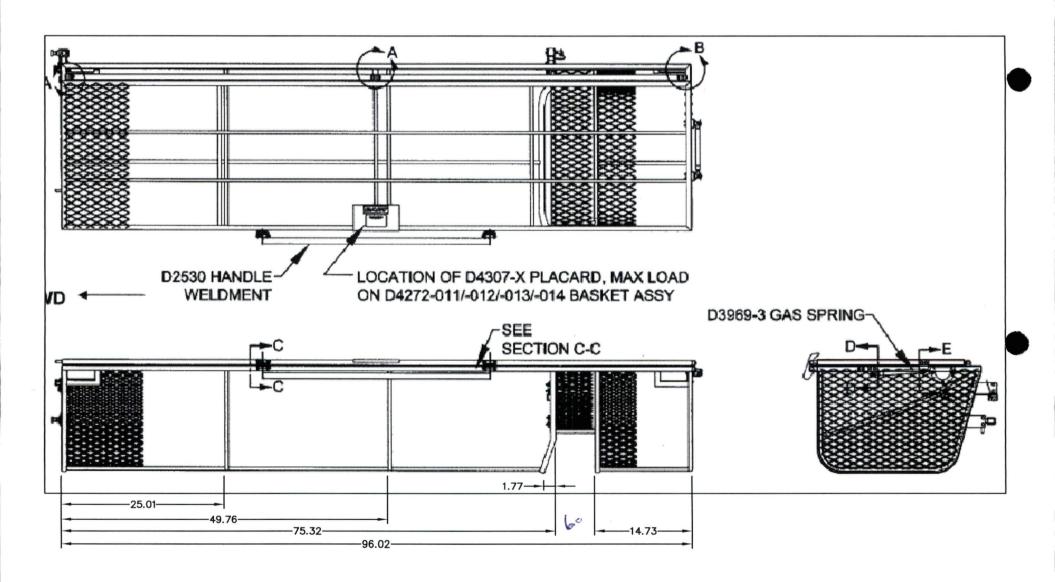


Figure 25-3: D4272-011/-012/-013/-014 Basket Assy (LH Installation Shown, RH Opposite)

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2718 on 407 e tool end door Wort lid 2 15/16 @ mid point of door Black Comb Alex Ground > bottom basket 7'2" @ aft houp 19 SEPT 2011 101/2 @ find hosp

2066 door open uide find corner 38 13/16 ch of basket (wright)